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UNIVERSITY OF ALBERTA

THE EXPERIENCE OF SCHOOLING FOR WOMEN AND GIRLS: AN EPISTEMOLOGICAL STUDY

by

BRENDA M. BEAR ©

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of MASTER OF EDUCATION.

in

PHILOSOPHY OF EDUCATION

DEPARTMENT OF EDUCATIONAL POLICY STUDIES

EDMONTON, ALBERTA

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Brenda Bear

14507 - 82 Avenue
Edmonton, Alberta
T5R 3R7

Date: January 5, 1995

DEDICATION

To Bob with love,

and for all the little girls—especially Stephanie.

ABSTRACT

This thesis critically examines modern literature which argues on philosophical, psychological, physiological and sociological grounds that women and girls have ways of knowing that are, in general, distinctive of their gender. It also examines arguments that the typical North American school and university has a systematic structure of operation that does not take account of female ways of knowing, thus putting females at an educational disadvantage compared to men, and also harming females as persons. It is also maintained by some that the typical school has its aims and structure by virtue of the dominance of a "male cognitive perspective," whether this has generated the aims and structure, or serves to provide the rationale which helps maintain it.

It is concluded that the evidence for distinctive preferences in female ways of knowing is adequate, that the physiological basis is as yet uncertain, and that therefore the differences must be considered as culturally conditioned. The suggestion that in some way knowing, as such, is different for males and females is rejected as untenable, and concluded that 'know' means the same for both genders, and that both have a capacity for all ways of knowing, regardless of their preferences. Overall, the male preference is for rational/analytical approach to knowing, and the female preference is for more intuitive approaches. In school, and perhaps also in general society, these differences are paralleled by a male acceptance of competitive isolation and authoritarian pedagogy, and a female preference for connective relationship and co-operative learning.

An epistemological inquiry into the meaning of 'knowing' and the process of coming to know reveals that the various ways of knowing identified in the literature are in fact all necessary aspects of an activity of

understanding that leads to the most valuable experience of knowing. In light of the conclusion it is argued that educationally, personally and socially, males are as adversely affected by schooling as females, and that a radical change in schooling, emanating from corrected epistemological assumptions would be the only truly responsible approach to the problems. This is discussed as the change from a "separative/transmission" to a "connective/community" conception of educating and related pedagogy, with implications for teaching, learning and the relationship character of schooling—in which the detailed understanding of respect for persons is ethically imperative. Central to this revised pedagogy is perhaps the most neglected mode of learning, namely dialogue. The overall conclusion is further supported by reference to the global human/planetary crises, and the ways in which these require precisely the kinds of change in conception and practice of education which have been argued.

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CHAPTER I

INTRODUCTION

I became aware that to ask meaningful questions and find plausible answers about knowing as it relates to male and female students, I needed to begin with an inquiry into the basic meanings of terms such as knowing, understanding, knowledge, and other terms that are encountered when the discussion centers around education.

Knowledge, Knowing and Understanding

A key question in the emerging literature is: Are there differences in male and female ways of knowing? If knowing is variously defined as a 'state' of knowing, or knowledge that is 'known' or held by a person, or an idea that is accepted as true, or a body of symbols truly representing facts and events (real things), then it is reasonable to assume that what males and females know will be the same when they are involved in the same knowing experiences. Taking this view, knowing is an attainment—the result of a process of coming to know. The proposition that 2 x 2 = 4, for example, is not going to vary depending on whether you are male or female. The meaning and truth of the proposition are the same for both sexes.

For other areas of knowledge, things are less clear. For example, history and literature emphasizes the major role men played in war, e.g., as courageous leaders and tenacious warriors. The significant role of women in wartime tends to be ignored—nursing the injured soldiers and staffing the factories to build goods needed for war. The consequences of war for females, sending sons to battle and becoming victims of rape, also tend to be ignored, rationalized or discounted. So, when males and females are exposed to the same historical or

literary knowing experience, is what is known about war the same for both genders?

Specifically, the question becomes: Is there an intrinsic male cognition and female cognition? Cognition can be defined as: to become acquainted with, to come to know or the act or process of knowing. Another definition for cognition is knowledge or the end result, the product of the process of knowing. (Webster's Seventh New Collegiate Dictionary, 1967, p. 161) When this meaning is attributed to cognition, the concept assumes the same criteria and conclusions as those previously applied to knowing. Does knowing, or what is known, differ depending on the gender of the knower?

While this line of inquiry is pursued in much of the literature I am using, it is important to point out that this is not my primary focus in the area of knowing. My quest involves understanding the significance of the various ways of knowing, and how they relate to men and women. If knowing is understood to mean ways of coming to know, the following kinds of questions are pertinent:

- Can the education process include intuition and the arts, and if so, in what form?
- What is aesthetic knowledge and how does it differ from scientific, or propositional knowledge in general?
- What parts do insight, attention and direct awareness play in knowing?
- What is the role of psychological and cultural conditioning in learning?

These questions emerge as crucial. What is determined as understanding and knowing in an acceptable education for a society is going to set the goals, values, biases and processes, such as change and creativity, of the people. Furthermore, the definition of an enriched education also defines a deficient education, raising questions about needed change.

The methods of becoming educated and the kind of education we attain contributes to a particular way of living that becomes the real world of the person. Walker in *Education With a Human Face,* writes that:

> While schooling has been charged with being comparatively ineffectual in positively changing the overall outlook of students, there is little doubt that over twelve of the highly impressionable years of a child's life schooling *could* be highly influential. (Walker, 1988, p. 5)

Behaviorism

A particular strategy of learning that has gained massive support and implementation in North America is behaviorism. It is a mistake to consider behaviorism in relation to the place of knowing and understanding in the definitive aims and goals of educating. Behaviorism or behavioral conditioning has been variously defined as, "a way of predictably engineering the performance of specific *behavior* (or 'behaviors,' as the behaviorists prefer to say)" (Walker, 1988, p. 72), a "way of controlling behavior by manipulating its consequences" (Schermerhorn, Hunt & Osborn, 1988, p. 134), and a "relatively permanent change in behavior resulting from experience." (Schermerhorn et al., 1988, p. 133)

One key element in all the definitions is behavior. The goal of behaviorism is 'to do some action' related to behavior patterns and the 'action' will affect a predetermined and desired change in the behavior of the student. The desirability of the change in behavior is determined by the change agent, not the student. Does a behavior change equate to understanding? Is overt behavior change an acceptable goal of education? Can understanding be manipulated? (Walker, 1988, p. 73) In general, what really happens to the child in an educational system that assumes a strategy of behaviorism? One key element is the externally or other-engineered orientation to learning. A second

key element of behaviorism involves an external method of changing the target behavior. The behavior of the child will be manipulated, engineered, modified or controlled from outside the judgment of the learner. A specific applied program of behavioral change is often referred to as behavioral modification.

An easy assumption about behaviorism is that it only touches behavior. But it manipulates emotion related to behavior, for example, fear, desire, purpose, and self-esteem. The most important factor in a behavioral modification program is the behavior to be changed and the modification strategy. Again, an external factor, behavior of the student, is stressed without concern or awareness of the many significant internal factors (interests, needs, beliefs and experience) that is the child. To ignore elements intrinsic to the individuality of children in order to train them to behave in predetermined predictable ways is disrespectful of their individuality, and as such, could be regarded as dehumanizing.

That behaviorism stresses rewards, or positive reinforcement, rather than punishment, does not soften the above criticisms regarding the intent of education and dignity of children. Furthermore, stressing rewards does not mean the absence of punishment. When children do not operate in an environment of the target behavior standard set by the change agent (teacher) the reward is withheld. This is likely to be viewed as punishment by children.

Behaviorism, as a learning strategy, fits with and reinforces the perspective that knowledge is a collection of predetermined beliefs and related skills with a learning methodology based on 'consuming' this information. The intent is then to show that the student can predictably and dutifully recall and recite that information when required. One significant goal of education is to encourage a change in behavior, but it is only one goal and outcome in an overall process of knowing or understanding. Ignoring the larger span of characteristics of the process may contribute to unwanted and unexpected

consequences in the education process and the perception of the child. For example, as the behavioral goal of behaviorism is producing 'the right answer' or 'the right behavior,' the potential significance of errors as educational necessities and opportunities, is ignored or discounted. Error means the 'wrong' answer or the 'wrong' behavior. Wrong, in this instance, is defined by the body of knowledge to be learned and by the teacher. Therefore, children will quickly realize 'wrong' answers are painful when they are punished. Although the system may claim to only implement positive reinforcement, the student will quickly realize that offering wrong answers results in the painful experience of the withholding of rewards. Walker (1988) presents a different view of error when he asserts that errors can be useful when, once made, they function to further learning and understanding. It is an anomaly that scientists, historians, mathematicians and philosophers can make mistakes which become critical to their progress but students are not permitted this freedom.

Gender Related Physiological Differences

Also pertinent to the examination of gender differences in educational ability and attainment is physiology. Physiological brain differences are now considered a potentially rich area within which to pursue explanations of different ways of knowing for males and females. The brain has many connectors or fibers that carry the signals needed by different parts of the brain to communicate with one another. One significant set of connectors is the corpus callosum that connects the two cerebral hemispheres and is a major avenue for interhemispheric communication. The corpus callosum contains between 200 and 300 million axonic fibers. (Herrmann, 1988) Conclusive evidence exists to show that without this connector the brain has no way of integrating one specialized mode of knowing in one hemisphere with its counterpart in the

second hemisphere. An example of this is developing a concept from a visual experience, and then translating that concept into a written or verbal format. (Herrmann, 1988)

Important differences between men and women exist in the area of the corpus callosum and the differences appear to favor the females in three ways. First, autopsy-based studies show that the corpus callosum is on average 10 percent larger in the brains of females than males which means the presence of as many as 20 million more axonic nerve fibers. Second, the speed that an impulse from a neuron in one hemisphere travels to its mirror image in the other hemisphere is 5 to 10 percent faster in females than in males. This means that many females can move ideas back and forth faster than most males. Third, the corpus callosum in the female brain seems to mature earlier than that of the male. (Herrmann, 1988)

The myelin sheath that protects the nerve fibers forms more completely and competently in females. This provides the female brain extra time to learn to use the corpus callosum in the cerebral hemispheres. This may be a major contributor to the females' relative ease when operating with an intuitive nonlinear mode of knowing. It also may explain the heightened ability of females to verbalize those modes. (Herrmann, 1988)

Possible Implications of Gender Related Brain Differences

How do these conclusions relate to the left brain/right brain theory? Are females likely to more freely tap the resources of the right brain and experience the use of the whole brain? Further results in this area could be valuable for understanding significant basic differences between the brains of the two sexes and any related differences in ways of knowing of both sexes. Despite this potential for further understanding the physiological differences and their consequences, detailed discussion of the research is beyond the scope of this

thesis. Suffice it to say, there is evidence in this area, as well as in others, to suggest that learning environments and expectations for males and females must be assessed with great care, and the old assumptions of gender uniformity in learning governing educational planning must be radically reassessed.

The Male Cognitive Perspective

Much of what occurs in the curriculum and the learning environment of the school has been given a philosophical rationale by the work and influence of Peters (1966) and Hirst (1974). In terms of philosophical assumptions, Roland Martin claims that the influence of Hirst and Peters on the ideal of the educated person emphasizes certain traits, characteristics, areas of knowledge and ways of knowing that are traditionally and stereotypically appropriate for males but less appropriate for females. Furthermore, Roland Martin claims that traits, characteristics, areas of knowledge and ways of knowing that are more typically female are ignored, modified or discounted in Western culture. She argues that the philosophy and perspective of the ideal educated person, as conceived by Peters, is forged from a male cognitive perspective. Roland Martin says that,

> the intellectual disciplines into which a person must be initiated to become an educated person *exclude* women and their works; *construct* the female to the male image of her and deny the truly feminine qualities she does possess. (Roland Martin, 1981, p. 7)

Hirst (1974) and Peters' (1966) view of the ideal educated person emphasizes rationality and analytical thought rather than intuition and feeling, logic and argumentation, rather than compassion and cooperation. Siegel (1983) and Roland Martin agree that both males and females can achieve this ideal, and they agree that individuals of both genders may fail to do so. But at this point Roland Martin does not use the term 'male cognitive perspective' to assert that the ideal of the educated person is attainable by all men and only men.

Roland Martin did not conclude that two perspectives or that two separate ways of viewing the world exist; one for men and one for women. Nor did she contend there exists a genetic determination of a sex-bound cognitive perspective. It has been reasonably concluded that intrinsically male cognition and female cognition do not exist. She does, however, contend that Western society genderizes some traits such that there is approval of Peter's ideal attainment for males, while this same degree of approval does not appear to exist when the ideal attainment occurs for females. Males who attain the ideal are likely to feel it is appropriate for them and feel comfortable with their achievement, while females are more likely to experience alienation, internal conflict and discomfort when they achieve Peter's ideal. (Roland Martin, 1983) Accordingly, this leads to the following questions:

- Are there ways of knowing that are more likely to be compatible with females than males?
- Is it probable that males and females have comparable ways of knowing but the societal expectations compromise those ways of knowing for females in ways that create conflict for them and are harmful?
- Is there enough evidence to suggest that a female cognitive perspective exists?
- Does the male cognitive perspective apply to most men, or is it an idealized view of how significant parts of the world are put together that has been adopted and used by North American institutions?

It has long been believed that the traditional school and classroom situations are more comfortable for most girls than for most boys. The claim is that girls are quieter and more physically restrained. Therefore girls are more readily able to accept sitting in silence in a large group and following directives

and agreeing with the authority of the teacher. Is it possible that this classroom style is really more accommodating to the behavior patterns of boys than girls? Do boys tend to be more active in the classroom that provides them with more opportunities to learn? Other questions of this sort arising from and spurring research in the area are the following:

- Do coed teams mean equality of access to sports training education?
- Is there equal opportunity for females to participate in a team sport when playing on a mixed team?
- Do the same opportunities exist for males and females to shape their education to their own needs and interests in the classroom?
- Do males tend to ask questions more often than females?
- Do they ask questions with a different intent than females?
- Can this intent of males actually lessen the value of the educational experience for females?
- What educational experiences are occurring for three girls in a primary grade gym class who achieve and maintain an ungainly and uncomfortable gymnastic position while the teacher ignores their success and cajoles and coaxes a boy to follow her directions and attain the same position as the girls?
- Do females consistently get less teacher attention than males?
- What tacit message is given to the female student when the male grade one teacher consistently organizes a pick-up football game with the male students at recess?

The Influence of the Male Cognitive Perspective on Schooling

The thesis critically examines some influential female philosophers' and educational theorists' views about the conceptions of knowing, knowledge and

truth in educational institutions. They contend these conceptions are based on a model conceived by the dominant-male culture, consistent with the supposed predilection of males. This institutional model places a high value on the rational, objective and scientific, while devaluing the intuitive-feeling and subjective ways of knowing that tend to be associated with women. To devalue the specific ways of knowing is also to devalue individuals who use those ways to know their world. "It is generally assumed that intuitive knowledge is more primitive, therefore less valuable, than so-called objective modes of knowing." (Belenky, Clinchy, Goldberger & Tarule, 1986, p. 86)

It is argued that the devaluation of females' minds has also led to the devaluation of their contributions, for example, contributions in the social sciences, literature and physical sciences. In fact, it has been further argued that the insidiousness of the male-dominated orientation is at the heart of the philosophy, curriculum and methodology of the traditional North American educational system. (Gilligan, 1982 & Roland Martin, 1981, 1983, 1985) There seems to be an underlying assumption that if the educational approaches are appropriate for males, they also will be compatible for women.

The rationale behind this thinking is consistent with an assertion of the male bias that ignores women before the fact, arising from the belief that what works for males will work for females. In addition, theories and studies of human development have been male dominated, for example, for the most part scientists, experimenters and research subjects have been men. Females are considered and discussed in these studies with an implied focus not on what they are, but rather a focus on what they are not, in relation to men. "If and when scientists turn to the study of women, they typically look for ways in which women conform to or diverge from patterns found in the study of men." (Belenky et al., 1986, p. 6)

Dividing human nature into two incompatible groups has led to a disproportionate emphasis on what is thought to be 'male,' and a lack of attention to characteristics that are not. For example, more is studied and known about critical thought, autonomy and independence, and a morality that involves rights and justice for both males and females. By comparison, very little attention has been given to the nurturing, intimacy, interdependence and contextual thinking, so much more characteristic of females. (Belenky et al., 1986, p. 6) Little time and energy have been devoted to the identification and exploration of ways of knowing or modes of thought and understanding that are, on average, perhaps more developed in women.

There is also evidence to suggest that what happens to girls has a long-term effect that can be seen in women. In a study designed to evaluate how male and female friends talk to each other at different grade levels (from Grade two to university), one clear observation was that second grade girls and university level women had more similarities than second grade girls and second grade boys. (Tannen, 1990, p. 245)

Geographic Limitations

Where there is an apparent marked gender difference in learning and interaction, it seems to reflect geography. The geographical scope of this thesis on its empirical side has been limited to North America, and because more information is available in the USA than Canada, the scope has been further narrowed. An assumption has been made that what is found to be a consistent pattern in the population in the USA is also applicable in Canada.

> This is an important distinction as examples of alternate patterns of behavior are revealed in other countries. For example, it appears that, in conversation with males, it is more likely to be the American male who turns friendly conversation into a contest than a British male. There is less one-up-manship and fewer attempts to

dominate and usurp conversation time on the part of the British male. As one European male expressed it: "Talking to American men is like a war zone." (Tannen, 1990, p. 294)

CHAPTER II

GENDER DIFFERENCES IN INTERACTING, COMMUNICATING AND KNOWING

Introduction

So far it has been suggested that a certain narrowness in cognitive perspective has destructive effects on humanity in general, and education in particular. Now we shall consider, in more detail, the interface of this with gender bias.

Male Cognitive Perspective

The male cognitive perspective, as presented by Roland Martin (1981), does not simply mean 'thinking like a man.' In fact a term such as 'traditional cognitive perspective' may be less controversial, create fewer misconceptions, and provide more openings for dialogue and change. The male cognitive perspective can be viewed as too narrow, with an aim of producing rational, and analytic thought and disconnecting it from the person as a whole. Consequently, meeting the expectations of a system based on a male cognitive perspective can be equally difficult for both men and women.

> Jane Martin has argued that the idea of the educated person as espoused by Peters and Hirst is too narrow and constitutes therefore an obstacle to women. I would go further and suggest that narrow ideals are an obstacle to everyone, men and women alike. (Arnstine, 1983, p. 59)

While recognizing the disservice to both sexes the present educational system perpetuates, it is necessary to acknowledge that a gender bias does exist and that women are likely to be more disadvantaged than men by it. Arnstine says,

> that most school programs and educational ideals are strongly biased toward males and that they foster the cultivation of certain attitudes which, because of certain features of our culture, are relatively easy for males to acquire and are rewarded only when exhibited by males. (Arnstine, 1983, p. 59)

It has been argued that it is more likely males will be comfortable in an educational setting as prescribed by Hirst (1974) and Peters (1966), although this approach will not accommodate all males, and the prevalent approach presents a conflict for most girls that results in alienation. Therefore, females who appear to adapt to the system and its criteria for success also experience conflict and alienation. (Belenky et al., 1986; Gilligan, 1982 & Roland Martin, 1985) This suggests there is an educational and ethical result of educational programs that ignores attitudes and behavioral patterns most characteristic of women, by virtue of their cultural upbringing.

School Performance

It appears that females perform extremely well in school, excelling in academic areas where males are presumed to excel. This conclusion is based on a study at the University of Alberta where the grades of male and female students were compared. In all but one academic course, females achieved higher grades. (Decore, 1984) Roland Martin (1985) states that these females pay a social and emotional price for their achievement. Her findings indicate that adapting to the educational system increases the likelihood of conflict and alienation.

To better understand the possible effects of schooling on males and females, it is worthwhile to explore whether or not men and women generally show a predisposition to engage in different general behaviors, as they relate to interacting, communicating and knowing.

Differential Development Paths in Experiences and Expectations

A female preference for a way of being is not necessarily biologically determined, but rather determined by gender. Roland Martin offers that characteristics which vary by gender are culturally, socially and psychologically determined. The differential treatment experienced by boys and girls from birth will affect expectations, motivation, behavior, interests, attitudes and evaluation of self. It is unlikely that these significant experiential differences will not result in different aptitudes and preferences in the ways of coming to know.

> No research has yet been done that shows conclusively that being female affects the way one learns, but I submit that in view of everything we know about the differential socialization of males and females it would be foolhardy to assume that it does not. (Roland Martin, 1985, p. 19)

The expectation that women, not men, will provide early childhood care, provides a significant experiential difference for males and females in the early years that is likely to influence social and emotional development through adulthood. This appears to result in females defining themselves in relationship and connectedness with others, while males are more likely to identify themselves according to separation from others. (Chodorow, 1978 & Gilligan, 1982) In particular, females have empathy as a crucial part of the self, where empathy means an ability to experience others' feelings and needs, almost as if they are one's own.

Separativeness vs. Connectiveness

According to Chodorow (as cited in Gilligan 1982, p. 8), two significantly different developmental paths occur for males and females. The female child nurtured by a female strengthens her connectedness with the female, thereby developing an understanding of herself and the expectations the world has of her as a female. However, the male child who is cared for by a female, must

claim his independence and separateness if he is to develop an identity and understanding of himself in terms of his masculinity. The expectation for males is that they continue to demonstrate their independence and separateness, and the paths chosen for them reinforce this pattern. For example, fatherhood does not necessarily mean a connectedness to the family, but rather a force to be a good economic provider. This often means more hours away from home and an orientation to the world external to the family. Women, on the other hand, have the opportunity to maintain and enhance their connectedness and interdependence through childbirth. Usually it allows women to develop and continue networks within the family and with other mothers and children in the school, church and community. Working and talking with teachers, youth group leaders, councilors, child care workers and various other persons who interact with the child strengthens these relationships. Men often realize the importance of the bond between father and child, but this idea of a close relationship will not necessarily provide the opportunities for connectedness and networking, particularly if the father is primarily involved with economic responsibilities.

Gilligan (1982) suggests that one outcome of interaction based on separation is an evaluative process that measures a person's worth in relation to others. This creates interaction patterns based on status and inequality. The individual's independence will be a prime criterion to determine relative worth and status, since independence suggests that connectedness is not required by that person to accomplish goals. Accordingly, differential status is ranked and persons are positioned hierarchically. Based on individuation and independence, connectedness and intimacy are ranked very low and displays of connection are often seen as indicators of dependency, weakness, incompetence and insecurity. (Gilligan, 1982 & Tannen, 1990) For example, I observed an elementary school teacher of my acquaintance was critical of a

female student who was working independently but persisted in seeking a closer relationship with the teacher. The teacher viewed this behavior as dependent and negatively evaluated the student, particularly since the child could do quality work independently.

The impact of these developmental paths can be seen in the differential orientation to games and the application of rules for playing games. Gilligan (1982) states that while playing, boys tend to argue constantly, but resort to the rules to carry on, and do not terminate a game because of conflict. Girls' games are more likely to be cooperative rather than competitive, as in skipping and hopscotch. If conflict occurs, the game ends because the girls are more concerned with maintaining the relationship than finishing the game. Many games (for example, hockey) provide an opportunity for boys to learn the independence required in a large, impersonal, hierarchical organization of people, and to control situations through the application of rules. (Gilligan, 1982, Lever, 1976 & Piaget,1965)

Girls further their learning of cooperation and empathy with a goal of relationship enhancement and I am reminded of two personal observations that bear this out. The first involved watching two five-year-old girls on opposing soccer teams running down the soccer field hand-in-hand. The second concerned an Edmonton primary grade school teacher who implemented a behavioral control system whereby students were appointed 'caretakers.' The students' task was to report talking, not working behaviors of the students to the teacher. After two months of being controlled by two appointed 'caretaker' boys, a seven-year-old girl expressed to me her relief at having a female 'caretaker,' saying, "Jordan is a girl and we don't care about those rules."

Independence Defined

At this point, it is worthwhile to clarify the meaning and significance of independence as it is used in this thesis. Downie and Telfer see relative independence as an important characteristic of a person possessing rational will. (1969, p. 20) Independence refers to the capacity and willingness to set goals for oneself, standing up for oneself, making up one's own mind, knowing what one wants and how one ought to behave. In short, it refers to rational self-determination. With this in mind, it does not seem possible to develop this attribute in a teacher/student situation that is dominated by hierarchy and power relations. Dependence on others is structurally prescribed in hierarchical arrangements. Both parties can be viewed as dependent in a relationship where one is in authority over another, since the authority of one depends on the subordination of the other and vice versa. More power does not provide independence.

Asymmetrical situations are structurally unable to foster independent thought and action. It would appear that often what is evaluated as independence, on the part of the student, is dependence. A teacher may consider a student to be independent if she follows directions quickly and correctly and works alone. This behavior does not coincide with those traits that are identified above as part of the person who possesses rational will. A dependent-independent criterion is used in report cards to measure student performance in one Edmonton school system. Interestingly, dependence is evaluated negatively, while independence is highly regarded.

When the teacher/student relationship is one of dominance and submission, both parties support the continuance of the role, or position and status ranking of the other (i.e., without the student, there is no teacher). While there is the possibility that both parties are viewed as ends in themselves, the

overriding value that is placed on individuals in a hierarchical system relates to their positions in the hierarchy. While respect for the person is possible, it is not an expectation of a system in which the hierarchical structure promotes dependence, rather than independence, as defined by Downie and Telfer (1969). Independence is an integral part of self-determination and is a significant aspect of rational will. However, it is a characteristic that would appear to be more attainable in a supportive relationship of connection and equality, rather than in a power hierarchy.

Systems based on hierarchy, including the school system, may emphasize the *role* of the individual at the expense of the person, who may only experience the self in the narrow confines of a particular role or roles. To say that women pursue 'personal connectedness' does not mean that independence is unimportant, but it does mean that the major focus is on maintaining and enhancing relationships. This orientation may more closely approximate Downie and Telfer's (1969) definition of independence. Connectedness requires equality of persons in the relationship. It is unlikely 'personal connections' can flourish in an environment focused on hierarchy and status.

> Connected knowing arises out of the experience of relationships; it requires intimacy and equality between self and object, not distance and impersonality; its goal is understanding, not proof. (Belenky et al., 1986, p. 183)

Gender Evaluation and Status

Systems based on hierarchy and status create and emphasize the differences between people. These differences often lead to evaluations of 'less' and 'more' or 'better' and 'worse.' When a male perspective is applied interpretatively to differences between males and females, females rank 'less than' the male. In fact, what deviates from the dominant male perspective is 'less

than' because male characteristics and behavior are considered to be the norm. For example, when morality is considered to be based on abstract rules and universal principles, studies including men and women indicate that men attain a higher level of moral development than women. (Kohlberg, 1969) The original research that led to this conclusion examined only men and their relative moral development according to a view of morality as morality of rights. It was assumed that women viewed morality in the same way. However, studies of morality and women indicate that women define morality situationally, in terms of responsibility and care. (Gilligan, 1982) However, if morality of rights is the most accepted view, it will be assumed that men demonstrate a higher level of morality than women, and thus in this way it will also be assumed that women are morally 'less than' men.

Despite the acknowledgment of gender-related differences expressed by Erikson (1968), Freud (1961), Kohlberg (1969) and Piaget (1970), to name a few, the criteria for evaluating behaviors or characteristics of people appear to be that which is appropriate for males. For example, Erikson saw separativeness as a part of the male life-cycle, while intimacy was part of the female life-cycle. Although there was an awareness that the differences exist, separativeness is characterized as *developmental*, and intimacy is viewed as a hindrance to development. (Gilligan, 1982)

Separativeness is also seen as 'independence' (in the sense of not needing relational interdependence) a highly valued characteristic, while intimacy is considered to be 'dependence' (as valuing relational interdependence) a characteristic that, from a typically male perspective, is viewed as a weakness. It is possible behaviors relating to learning that have been judged derogatively as dependent, are in fact an essential part of the complex process of interdependence.

Competition and Co-operation

Nowhere is the gender-based evaluative, measuring and ranking system more clear than in competitive activities, particularly sports. However, competition pervades all areas of living, job promotion, school grades, awards for artwork, competitive industrial edge, etc. This is not surprising considering that the positional social orientation is that of the dominant male perspective. The individual positional sense of self is based on where the person is ranked in relation to others seeking or suffering ranking in the same area. Positioning translates to 'winners and losers,' 'better and worse,' 'success and failure,' and 'superior and inferior.' It is more desirable to be superior than inferior, so there is a belief in the right to win over others and to consider the win a success.

According to Chodorow, as cited by Gilligan (1982), women have a personal relational sense of self, rather than a social orientation that is positional. A personal social orientation has as its foundation a profound sensitivity to others and a realization of responsibility to care for others. (Gilligan, 1982) Women also see competitive situations differently from men, because the evaluating and ranking are not part of the connectedness of relationships, but rather part of separative individuation. A situation that makes comparative success and failure of the individual central is inconsistent with a sense of interrelatedness based on empathy and caring. Chodorow states that "girls emerge from this period with a basis for 'empathy' built into their primary definition of self in a way that boys do not." (Gilligan, 1982, p. 8)

Gilligan (1982) states that in competitive achievement situations women experience anxiety and conflict because for a woman to achieve and succeed, someone must fail. Women tend not to interpret winning as a right, and may experience conflict and anxiety when their success is compared with the failure of another. In situations where one's success is not predicated on the failure of

another, women do not experience this anxiety. It is likely that the woman in a competitive achievement interaction knows that she is abandoning connectedness and caring for others, and knows that she is in a situation based on status, ranking and winning. This is a situation where she and the other candidates stand alone. It is also likely to be a woman who will avoid a competitive situation because winning is not important enough at the price of separateness.

Ways Women Seek Symmetry in Relationships

Tannen (1990) stresses that women tend not to want to be viewed as 'better than' which results in a behavior of putting themselves down to maintain parity or symmetry with another person. For example, a compliment or an accomplishment will be accepted and then immediately reciprocated, or alternatively a denial of having done anything of worth may follow a commendation. To so strongly seek symmetry in relationship points out the realization on the part of the woman that the situation is one involving status and separation, and that something needs to be done to maintain relational connectedness. This information suggests that the need to maintain relationships may interfere with attaining success for many women when the situation is defined as competitive. Competition can be viewed as an especially fearful situation for women as both the competition and the results of competition set the female apart from others. The fear of separateness and aloneness leads to an aggressive reaction for women. (Gilligan, 1982, p.42)

Women are expected to downplay their accomplishments, and identical behavior on the part of a male and a female is judged differently. It is also evident that females who succeed or possess a talent are not expected to act in a way that emphasizes their achievements. It would appear that the

achievements of successful women are more likely to be ignored than the achievements of successful men, and 'expert' men receive more respect than 'expert' women. In fact, expertise in women may evoke resentment rather than respect. (Tannen, 1990)

Public and Private Talk Differences

It is a widely-held belief that women talk more than men despite solid evidence to the contrary.

> Yet study after study finds that it is men who talk more–at meetings, in mixed group discussions and in classrooms where girls or young women sit next to boys or young men. (Tannen, 1990, p. 75)

One reason for this widely-held belief that women talk more than men is that women are not expected to talk at all, so that any talk is too much talk. Another reason may be because men observe and experience the disproportionate amount of talking done by women in intimate settings. If women dominate in intimate settings and only high-status men control the talk in public situations, it is likely that many men find they seldom anywhere have an opportunity to express themselves or be heard. Tannen also suggests that talk appears to have different meanings and achieves different results for men and women. Women are more likely to use talking time to build and enhance relationships, while men often talk to gain recognition and attention.

Tannen (1990) claims that women speak a "language of rapport" (p. 87), conversing in ways that establish and enhance relationship, stress symmetry and establish personal connection. She asserts that from childhood, girls seek friends with whom they can talk and share experiences and feelings. According to Tannen, men are more likely than women to use talk in an attempt to assert their individuality and establish their status in the hierarchy. This is

accomplished by dispensing information, displaying their knowledge and claiming attention of others. Men exert separateness of self, rather than connectedness with others in public situations and often in private settings also. Men often appear to be delivering an informative report while women are more likely to be seeking and building rapport. (Tannen, 1990) For example, I am reminded of a luncheon arranged for graduate students and professors to meet and become better acquainted. One male student used a disproportionate amount of talking time, adopted an argumentative academic stance, and continuously referred to a paper he had written to support his claims.

The desire for long-term relationships requires rapport to continue those relationships. To this end, women are more likely to be aware of, and interested in, the small, seemingly insignificant details of private life. This partially explains the importance of experiential learning for women. (Belenky et al., 1986) From this point of view, small talk has little appeal for men since it does not relate to hierarchical positioning, provide a forum to extol achievement, or enhance status. In fact for many men, small talk has the opposite intent—reducing status differences by creating symmetrical relationships. Women also gain valuable information about expected behaviors and attitudes from discussions about the behaviors of others. Private-life information is not likely to have as much impact on reaching goals of hierarchical ranking, and in this respect perhaps will not be as significant for many males. For many women the social context of information exchange is often more valuable than the information content. They consider that the way others respond to experience can be as vital as the knowledge of the experience because it reveals so much information about the person responding. While men are more likely to value the facts, women value the experience of other's opinions about the facts. (Belenky et al., 1986)

Listening Differences

When men and women demonstrate such significant differences in their talk-related perceptions and behaviors, it is likely that major differences also occur in the communication process of listening. This difference appears to be two-fold. Firstly, women and men have different purposes relating to listening according to their orientation of connectedness and separateness, respectively. Secondly, men and women also appear to demonstrate different responses to listening that seem to be instrumental in reaching the divergent goals of connectedness or separateness.

If talking occurs for men in order to impart superior knowledge, demonstrate expertise and determine position ranking as Tannen (1990) suggests, then it is consistent to evaluate the pattern of listening behaviors indicating the lesser status of the person listening and the superior status of the one talking. It can be assumed that the person who is consistently the recipient of the information and expertise of another, finds herself in a subordinate position. Tannen suggests that men are more likely to partake in a give-and-take of information, particularly when determining expertise and status. Bly demonstrates agreement when he says, "When men talk there is always a question of who's on top and who's underneath." (Bly & Woodman, Episode 6, 1992)

This is not to suggest that women do not listen for information, but that, according to Tannen (1990), women are more likely than men to listen with an aim to building and maintaining connection and symmetry in relationships. Again, where many men interact from a premise of supporting a social position, women emphasize the personal aspects of interaction. Tannen submits that to this end, women's listening behavior is more enthusiastic, accepting and inviting. Women are inclined to provide more feedback and demonstrate agreement,

rather than listening to create controversy and divisiveness which is more descriptive of conversations where the agenda is status based. When men are seeking status in conversation, women are talking and listening to create commonality and symmetry. Accordingly, women are likely to be perceived by men and themselves as occupying a lower ranking than men. The nonverbal and verbal focus of women's listening behavior is on the other person—laughing, head nodding, eye contact. Women are more likely to listen to the context of an interaction, while men are more likely to focus on the content of the conversation.

Effective listening is not a passive, vacuous activity, but rather a complex, active, purposeful process. Active listening requires action on the part of the listener and most of the suggested skills of listening have a verbal component. Active listening involves attending to the other person so the focus is on the speaker, and the information is in context where response from the listener is expected and desirable. "Listening is the action (or actions) we carry out in order to hear." (Bartoletti, 1991, p. 27)

All parts of the active-listening process include a verbal component except attention to the nonverbal communication of others. The other parts involve skills that include questioning, paraphrasing and clarifying what has been said in order to obtain further information. Active listening also involves reflecting to understand and express the feelings, thoughts and attitudes of the other person that are significant to the communication. Reflecting is verbally clarifying the feelings the listener perceives as being expressed by the other person while verbally disclosing feelings of the listener. Therefore, if women tend to listen rather than talk, and *active* listening involves the special kinds of talk outlined above, it is unlikely that most women actually engage in active listening at all.

Summary

Within a select framework of behaviors, there is evidence to suggest that men and women overall demonstrate a predisposition for different general behaviors. These behaviors can be broadly categorized in relation to connectedness and separation, whereby women tend to demonstrate a predisposition to emphasize connection, while men appear to be more likely to engage in behaviors that are more related to separation.

CHAPTER III

PERPETUATION OF GENDER-DIFFERENTIATED WAYS OF KNOWING AND GENERAL BEHAVIORS IN THE SCHOOL

Introduction

It has been tentatively concluded that men and women appear to demonstrate a predisposition to behave differently in their orientation to self and others. Males are more likely to embrace a vision of life and growth based on valuing the separateness of self. Women tend to project an understanding of life wherein the self is recognized as relational and enhanced through the initiation and maintenance of relationships over time.

It has also been proposed that the worldview based on the separateness of self is more highly valued and held in greater esteem than a worldview based on the self as essentially relational. Are these proposed general orientation and behavior predisposition differences between the genders evident in the school? Since men and women possess the same innate capacity for coming to know, do females generally demonstrate a particular predilection for ways of knowing that differ from those of males? If so, does the school tend to create an atmosphere that is equally accommodating to the relative predilection of most women and men? Does the curriculum of the school encourage the manifestation of certain ways of knowing as opposed to other ways of knowing? Some pertinent research will now be examined in more detail.

Influence of the Teacher in the Classroom

The importance of the teacher in the classroom cannot be overstated. Bruner stresses the significance of the teacher as a communicator, not only the dispenser of information. Teachers communicate their relative interest in a

subject and discipline. They also communicate the interest and value they place on a student and their expectations of student behaviors and ways of knowing. "The teacher is also an immediately personal symbol of the educational process, a figure with whom students can identify and compare themselves." (Bruner, 1977, p. 90)

When the teacher is the authority in the classroom, interactions are encouraged to be primarily with the teacher and tend to be open and public. Because knowledge is believed to be obtained only from the teacher, interactions with other persons tend to be discouraged. Knowledge, information and control reside with the teacher who directs the interactions of the students.

This framework is likely to meet the conditioned needs of most males far better than those of most females since the asymmetrical relationship created by hierarchy and an orientation of separateness is more applicable to the worldview of males. It is an area where males are likely to be more disposed towards the rules and the strategies required for success as defined by the system. The classroom arrangement requires that students adopt strategies of separateness from one another to achieve the visibility and attention required for individual success. A verbal display of knowledge or ability is a dominant strategy to improve, or at least maintain, the high social standing of a student in a classroom that is organized around the values of separateness and hierarchical positioning. (Tannen, 1990)

Public Talk

Tannen (1990) asserts that many men are more comfortable than most women when using talk to attract the attention of others. She also suggests that men often tend to be more capable of employing talking strategies that claim the attention of others. According to Tannen, males tend to talk more, talk longer,

initiate more conversations, ask more and longer questions, and feel more free to interrupt interactions. However, she proposes that males who have attained high status within the context of the school tend to talk more than males with low status. Since relatively few men are accorded high status, it can be assumed that most men find it difficult to access public talk opportunities in the classroom. Most men tend not to engage in rapport talk, so it is likely that opportunities for talking in the classroom are also limited for many men.

Adversarial Talk

Belenky et al. (1986) assert that some female college students viewed the adversarial discussion between students and the teacher as an academic game where the teacher was still in control and the students' arguments resembled posturing. They used public talk to please the teacher. The objective was to prove you could play the game rather than to learn new truths and grow. The classroom interaction became an impersonal exercise for these women that carried over into their written work. These students did not see truth as a factor in a combative debate where the person with the best argument was the winner. Belenky and her colleagues also report that many female students, even at the postgraduate level, do not feel comfortable with a talking style that requires competing for speaking time and establishing status. As students, for females the classroom is a hierarchy of positions rather than a complex community of connected relationships. The competition and aggression inherent in this approach provides a fearful situation for many women.

> The teacher wields very real power over the student, although masked with genial camaraderie; and it is dangerous for the relatively powerless to rip into the interpretations of the powerful. (Belenky et al., 1986, p. 106)

According to Belenky and her co-researchers, even in the classroom situations where argument is expected, females are likely to evaluate and choose the behavior that will not harm relationships. They will disagree with strangers rather than risk alienating significant others. They tend to agree or disagree about issues that have little significance for them and avoid discussing those topics that could create conflict.

> The classic dormitory bull session, with students assailing their opponents' logic and attacking their evidence, seems to occur rarely among women, and teachers complain that women students are reluctant to engage in critical debate with peers in class, even when explicitly encouraged to do so. (Belenky et al., 1986, p. 105)

Pring asserts that the best way for students to learn and understand concepts is through communication as collaborative learning. He stresses that students must be encouraged to participate in conversation where any inadequate understanding of the concepts can be detected and corrected or augmented by the teacher. Pring does not believe the typical school environment necessarily encourages conversation.

> And yet the curriculum of our schools is often constructed in a way that makes conversation impossible: the system of short periods in which a different teacher is related to in a formally arranged environment with minimum attention given to basic conditions of social interaction. (Pring, 1976, p. 13)

This view is indirectly supported by one of the female students interviewed by Belenky and her colleagues, who said, "In school you get detention for talking to others." (Belenky et al., 1986, p. 34)

Gilligan (1982) also suggests that males are often more comfortable than females in classroom situations where the teacher adopts a confrontational argumentative style of teaching. Hence, I ask myself, "What is the significance of this reaction in the classroom where students must constantly compete against one another for position, for teacher attention and for information?" One possible

reaction may be seen in women's preference for rapport talk rather than formal public talk. Most females opt out of the competitive public arena and seek strategies for meeting their goals in the connected relationship of the small group. One girl in grade two, after being disciplined for speaking to the child beside her in class, explained that some of her talk was 'work talk.' She was seeking clarification of information and felt more comfortable approaching a classmate rather than the teacher.

Consequently, a female student may choose to work alone and solve her own problems. I am reminded of observing a junior high school math class in 1993 where the boys responded to the teacher by raising their hands and shouting out answers to the questions, while all of the girls silently solved the same math problems in their workbooks. According to Belenky and her colleagues (1986, p. 105), males are more likely to ask and answer questions in a challenging manner, whereas females are more likely to see both situations as methods of exchanging information.

Classroom Talk and Connectedness

Formal education exercises in critical thinking often take the form of verbal combat where the teacher demands an aggressive critique of all ideas and opinions presented by the students. Many men are likely to view these sessions in an impersonal way and see them in a positional framework while many women assume the argument as a personal attack. Cultivating relationships based on connectedness means women are poorly equipped to defend themselves against what they perceive as a personal attack. Accordingly, it is possible that information is lost or distorted by the combative agenda of the teacher and the powerful males. It is also possible that the student is unable to recognize this potential distortion.

A public-report style of conversation does not meet a goal of personal connection with others, nor does it offer an opportunity for women to demonstrate their abilities effectively, feel positive about those capabilities, and be respected by others for their expertise. Tannen (1990) also finds that public-report style talk is not usually expected or positively evaluated when it is a style assumed by women. Therefore, when it is considered that rapport-oriented talk is discouraged in the classroom and the public-report style of conversation is unrewarding, females find themselves in a situation with limited avenues of communication.

One important aspect of the teacher is the authority that exists in relation to the students. The various responses that students have to this authority seem to be significant in terms of the actual behavior exhibited by the students in the classroom as they relate to learning and knowing.

Epistemological Perspectives

Belenky and her colleagues (1986) describe five epistemological perspectives from which women, in particular, tend to know and view the world. The perspectives are not to be considered universal, fixed, or the only possible categories. Nor has it been concluded that there is a developmental sequencing of the five perspectives.

Silent Learners

The first epistemological perspective is that of the "silent learner." Silent women have an extreme dependence on authority for direction and view authority as all-powerful and sometimes overpowering. Authority is viewed as coercive power and the most common response to authority is blind obedience or unquestioned submission. Everything in life is seen as a win-lose situation and silent women experience very few wins. The silent learner is incapable of

listening to an authority with an intent of reasoning and evaluating what has been said. They listen to the voice of others and their own inner voice is deeply suppressed.

Silent learners have a history of dependency and powerlessness. They see women as incompetent and passive. Silent women appear to have little ability to develop or express thought. "Thinking for themselves violates their conceptions of what is proper for a woman." (Belenky et al., 1986, p. 30) These women feel "deaf and dumb," believing they are incapable of learning from the words of others and believing that they lack words of their own.

To learn, grow and develop a sense of independence of mind, all learners need to develop a capacity for representational thought through conversation where there is a sharing of experiences and feelings. The capacity for representational thought appears to be deficient in silent learners, who lack confidence in their ability to use words and symbols to understand their world. Silent women would be overwhelmed by the barrage of words and forces in a lively discussion dominated by the teacher and the more powerful students. Silent learners need a supportive, nonthreatening atmosphere to develop an awareness of self and their own voice. A classroom atmosphere of equality, with an emphasis on dialogue rather than debate or lecture, would be more conducive to their learning.

Perry (1970) in his book, *Forms of Intellectual and Ethical Development in the College Years*, describes a sequence of epistemological perspectives as it relates to male undergraduates at Harvard. None of the men in Perry's study revealed a profile similar to the female silent learner. Although this may be because Perry's sample included only men who were attending Harvard and had already demonstrated a capacity for representational thinking, it is thought-provoking in this context.

Receivers

The second epistemological perspective is "received knowledge." Receivers tend to think of authorities—not friends, families or self—as the best sources of knowledge. Authorities are seen as having the right answers. Their learning is focused on listening and accepting. As one woman explained, "I like to sit back and just listen to what they have to say." (Belenky et al., 1986, p. 37) Although the receiver learners thought listening was a very active process, the emphasis was on concentrating to grasp the words of others. They did not ask questions, provide input or attempt to assess the position of the person to whom they were listening. They equate receiving, retaining, and returning the words of authorities with learning—at least with the kind of learning they associate with school. (Belenky et al., 1986, p. 39) Their truths, as conveyed by the authorities, are seen as unquestionable. Their world is one of black and white—ambiguous situations do not exist. Since truths are seen as unquestionable, the women do not critically evaluate them. They seek and expect a right answer for each problem. I can recall my confusion at being questioned during class dialogue, "Is there a right answer for any of this?" It is difficult to encourage original work from the receivers of knowledge. "Being recipients but not sources of knowledge, the students feel confused and incapable when the teacher requires that they do original work." (Belenky et al., 1986, p. 40)

The receivers do not critically evaluate ideas or formulate opinions. They are not capable of, or interested in, searching to understand the significance of the facts and information they so completely accept from authorities. It is possible to cite many examples of males who exhibit similar behavior. However, it is significant to note, that despite the reliance on authorities for learning and unlike most of their male colleagues, female receivers do not align or identify with these authorities.

Perry (1970) observed a particular way of thinking among many of the male students in his research sample that he termed "authority-right-we." This way of thinking involves a strong identification with authorities and a deference to their authority. Even those women in the Belenky sample who were awed by authorities and saw them as the source of right answers did not align themselves with those authorities and instead tended to adopt a perspective of "authority-right-they." (Belenky et al., 1986, pp. 43-45) One explanation for this difference may be that authority tends to be a male domain and college-level females do not find their gender represented sufficiently in leadership positions. A second explanation could be that the authorities do not include females in their group. A third explanation may be the disregard of writings and research of female scholars in the development of the curriculum. A fourth explanation may be the differential amount of time extended to males to parade their achievements and receive the rewards and praise from authorities. A final explanation can be found in women's tendency to relate to others from a position of connectedness while the men in Perry's sample may think more in terms of separation. According to this explanation, male students and the authorities are an in-group. Moreover, those who are neither student or authority in the situation are utterly excluded. In contrast, females extend group membership beyond themselves and the pertinent authorities.

> Men, valuing distance and autonomy, are more exclusionary. To them, "we," clearly means "not they." Women, valuing connection and intimacy are much more likely to be inclusionary; finding "they" and "we" to be intertwined and interdependent. (Belenky et al., 1986, p. 45)

Receivers also see truth, as stated by the authorities, as absolute. That is, there is universal truth that is true for everyone. (Belenky et al., 1986, p. 69) This view contributes significantly to their relationship with female friends. "The

young women who hold this perspective celebrate and magnify the experiences of similarities and intimacies with others." (Belenky et al., p. 38) This relationship provides the trust, equality, reciprocity and opportunity to give voice to their own experiences and beliefs. This is seen as a powerful force for receivers towards finding their own capacity of knowing.

Much of this is in accord with the gender development theme of Gilligan (1982), when she asserts that women tend to value connection and intimacy while men appear to value separation and autonomy.

Perry's (1970) study revealed that men spent only a very short time in the developmental stage similar to that of the perspective of the female receiver. Again, this sample was select and elitist, and it is unknown whether a broader sampling would have provided results more similar to the findings of Belenky and her associates.

Inward Learners

The third epistemological perspective is "subjectivist knowledge." This refers to a perspective where the conception of the authority in knowing has shifted from the external designate to the decision of the individual. Women who have this perspective will be referred to as "inward learners." Inward learners, unlike receivers, consider truth is ascertained according to the subjective conviction of the individual. They also believe that first-hand experience is a reliable source of knowledge. They reject authorities and experts to the extent of distrusting analysis, language, logic and abstraction. (Belenky et al., 1986, p. 71) Inward learners hold a multiple perspective of truth, believing their notion of the truth in any area is as valid as those of others. They also believe truth can change.

> Truth, for subjective knowers [inward learners] is an intuitive reaction—something experienced, not thought out, something felt

> rather than actively pursued or constructed. . . . They do not mention that rational procedures play a part in the search for truth. (Belenky et al., 1986, p. 69)

They learn through an overwhelming trust in the dictates of their "inner voice." (Belenky et al., 1986, p. 68) They place the highest value on their own feelings and experiences regarding truth.

Inward learners also are tuned to the feelings and experiences of others in order to understand the significance of everyday life happenings and further their understanding of their own lives. Through this experience, inward learners develop an awareness of others as 'other,' rather than conceiving others in terms of general categories. This can lay the foundation for respecting others as persons with goals and value systems of their own.

A relatively high percentage of young men in Perry's (1970) study fell into a category similar to the female inward learner, with its emphasis on "personal truth," as compared to absolutist and universalist epistemological perspectives. However, in larger studies, the actual responses and predominant ways of learning of the genders appears to differ dramatically. (Belenky et al., 1986, p. 66) Since inward learners base truth on personal and private experience, they do not force their views and beliefs on others. Belenky and her associates found that inward learners are often silent about their own beliefs in the company of authorities and classmates. Where her male counterpart sees disagreement and conflict as inevitable, the female student feels vulnerable and fears social isolation if she expresses a difference of opinion. She feels that to support her opinion aggressively will result in loss of support and relationship with others. This is double-edged sword, since the female inward learner has a strong need to remain connected with others. The gender view of opinion differs as well. Perry's men believe that their opinions are as valid as those of the expert authorities and that they have a right to their opinion. (Belenky et al., 1986, p.

64) Because the female inward learner sees her opinion as personal, she is less assertive than the males in Perry's study. "Their intent is to communicate to others the limits, not the power, of their opinions, perhaps because they want to preserve their attachments to others, not dislodge them." (Belenky et al., 1986, p. 66)

Female inward learners avoid the aggressive verbal exchanges with authorities, while the male inward learners engage in argumentative discussion with the experts, confident of their opinion and their right to challenge the authorities.

Inward learners have original ideas and see various options, but the expression of these radical ideas conflicts with a need to belong and stay connected. They realize that the expression of the novel and experimental is more likely to result in isolation for women than for men. Again the women were silenced and in these cases it was self-censorship.

Relying on intuitive ways of knowing, inward learners reject the explicit use of propositional knowledge as a means of truth discernment. According to Belenky and her colleagues, some females adopt an "anti-rational" view whereby they have little respect for the knowledge that results from science and scientific method. They perceive a spilt between the intuitive, feeling sense of knowing and abstract knowledge. They distrust logic, analysis and abstraction as they see these processes to be the methods of males. Knowing is based on inner experience and understanding the experiences of others. This epistemological perspective implies that "subjectivist" women develop what analytical and critical thinking skills they do through the observation of, and reflection on, their own and the life experiences of others.

It would appear that to remain with this perspective over a prolonged period of time is problematic for inward learners who are hesitant to support and

defend their beliefs and opinions because they fear the isolation and rejection of others. Belenky and her colleagues point out that the adversary classroom climate is another reason for their silence as they feel ill-prepared to perform effectively and many feel uncomfortable assuming the competitive spirit required to defend a position.

These feelings and the sense of disconnection and loneliness some inward learners expressed can perhaps be understood in terms of the response that Roland Martin (1981, 1983, 1985) claims some women have to the "ideal education" curriculum and structure as defined by Peters (1966). Roland Martin proposes that adaptation to the educational system increases the likelihood of conflict and alienation for women. Belenky and her associates report that some inward learners experience alienation and isolation within a system where they do not perceive they have the support needed to voice and explore their opinions and beliefs. Consequently, they tend to compensate by quietly conforming, listening and performing competently, possibly violating a strongly-held belief. Because they view this behavior as fraudulent, some inward learners also feel frustration and resentment within a structure that they perceive expects conformity or argument, neither of which is comfortable for these women. They also sense, with additional frustration, that they are expected to adopt ways of knowing based on analytic thinking and abstraction while suppressing the inner ways of knowing of intuition and awareness.

The claim to subjective truths as asserted by the men in Perry's (1970) study who occupied a similar position to the inward learner is part of the process toward separation and differentiation. According to the Belenky group, this sample of elite males see themselves as future authorities and believe in their right and duty to defend their opinions:

> By the time he reaches college age, the average advantaged child, like Perry's Harvard men, has learned that everybody is different, everybody has opinions, and the business of the classroom is to express loudly what you believe and feel. (Belenky et al., 1986, p. 64)

Procedural Learners

The fourth epistemological perspective is "procedural knowledge." Procedural learners use clear, established procedures of reasoning to support their intuitive thought. They assume that the process or procedure of an argument is more important than the content, and that teachers can accept disagreement if appropriate procedures are followed. Unlike inward learners, procedural learners do not place their faith in intuition as a source of truth and instead emphasize observation and systematic analysis as requirements for knowing. These women learn the procedural techniques of reasoning to attain knowledge and the writing and speaking skills to communicate this knowledge. (Belenky et al., 1986, p. 95) Procedural learners are practical and intent on seeing the world for what it objectively is. Procedural learners, unlike inward learners, are interested not only in what others think, but are interested in how others organize their thoughts, feelings and experience to form an understanding. They are also more attentive to the external world than inward learners. For example, procedural learners would potentially wait for the meaning and significance of a poem to emerge rather than imposing their own interpretation on the poem.

Differences can be detected among the women who generally fit the epistemological perspective of procedural knowledge. Some of them had a tendency to move towards impersonal rules and analysis, or a separative-learning mode. Others appeared to think in terms of relationship or a connected-learning orientation. Procedural learners tend to have both "separate procedural

learner" and "connected procedural learner" characteristics with a tendency to lean more to one than the other. (Belenky et al., 1986, p. 102)

Connected Procedural Learners. Connected procedural learners, like inward learners, find truth in personal experience not in external authoritative sources. However, for most women, the connected procedural learner is less self-centered than the inward learner and her interest in others' experiences is genuine. In order to share and understand the experiences of others, she develops a capacity for empathy. The following words of Simone Wiel apply somewhat to the connected procedural learner. "The soul empties itself of all its own contents in order to receive into itself the being it is looking at, just as he is, in all his truth." (cited in Belenky et al., 1986, p. 99) The connected procedural learner deliberately participates in procedures designed to understand others' experiences, opinions, arguments and feelings. Her purpose is nonjudgmental and she is aware there is a logic to the point of view of others. This is an experiential logic rather than a propositional logic. The focus is on the form of thinking of others, not just the content of what is thought. The procedure of understanding for the connected procedural learner applies to the understanding of art, texts and objects, as well as people.

Separate Procedural Learners. The separate procedural learner appears to meet the objectives and develop the rational analytic, impersonal knowledge mode that is stressed in Peters' (1966) conception of the ideal education. All the procedural learners were attending college or were college graduates and "were well practiced in the art of being students." (Belenky et al., 1986, p. 87) "Viewed from a distance, at least, these women might almost be men." (p. 101)

These women "suppress the self" (Belenky et al., 1986, p. 109). They ignore their own feelings and beliefs in order to adopt the impersonal stance of

"disinterested reason." (p. 110) Many women who achieve disinterested reason find that they have little interest in anything and experience disconnection, meaninglessness and monotony. This result is compatible with the conflict and alienation that Roland Martin (1981, 1983, 1985) suggests is experienced by many women attempting to attain the "ideal education."

The search for independence of thought through reason and denial of personal feelings appears to be futile for the separate procedural learners, since reason is often used only to meet the expectations of authorities. The acceptance of the expectations of authorities means that the separate procedural learners must accept their judgments. This is not independent thought. Separate procedural learners feel they must find ways to defend against authorities although they accept the standards dictated by the academic authorities. This contradiction creates a vulnerable situation. Separate procedural learners seem to take a position and play the part required to convince others, usually authorities, that the position taken can be knowledgeably defended. The truth of a particular position is seen as somewhat irrelevant compared to the demonstrated ability to competently follow the procedures of reason. "The content of the academic arguments hardly mattered; what did matter was proving that you had mastered the form." (Belenky et al., 1986, p. 111) Reasoning is impersonal, passionless and removed from the subjective particularity of self.

Knowledge is revealed to the authorities in the public arena with debate, argument and disagreement. The listener in these activities is viewed more as an enemy or, at least, a judge. The public voice of the woman is expressing ideas and conclusions determined by the academic authorities. This style of learning appears to be more congruent with what is expected for the mastering of Peters' (1966) ideal of education. Separate procedural learners appear to use

their reasoning analytical knowledge more to manipulate and gain the respect of others in report or public talking situations. This also contributes to the experience of disconnection and anomie. Their words, not supported by their beliefs or personal truth, are inappropriate in personal, rapport-talk relationships. Female separate procedural learners did not engage in reasoned critical discourse with friends as did their male counterparts in Perry's sample.

Like their male counterparts described in Perry's (1970) study, separate procedural learners rely on critical thinking and impersonal reasoning that forces the "doubting game" and often culminates in an adversarial stance in the classroom. When they find themselves in this position, they use their analytic thinking and reasoned communication skills to defend themselves in arguments with authorities. They learn to argue in order to justify an academic position to meet the demands of professors.

Perry believes the apparent conformity to the expectations of authorities demonstrated by the men in his study is part of the process of the development of the capacity for independent thought. (cited in Belenky et al., 1986, p. 108) However, it is unlikely that the male student can achieve independent thought through a process that is dominated by the authority. The authority initiates the process, dictates the procedure (including standards of thought), and controls and judges the final presentation of the student as that of a student.

Constructivists

The final epistemological position is "constructed knowledge" where there is an integration of intuition and personal reason. Constructivists form or create a way of thinking about the self and the knowledge and truth that directs the moral, intellectual and relational parts of their lives. (Belenky et al., 1986, p. 136) Thus, there is a need to examine all accessible aspects of the self, specifically

those parts that create conflict. This provides an understanding relevant to the self known and lived as a whole.

> It is in the process of sorting out the pieces of the self and of searching for a unique and authentic voice that women come to the basic insights of constructivist thought: *All knowledge is constructed, and the knower is an intimate part of the known.* (Belenky et al., 1986, p. 137)

Realizing that all knowledge is in some sense constructed allows constructivists to recognize that knowledge is not necessarily truth, but that truth can be found within the context of knowledge. For example, they believe that although a theory may not be truth, the theory model can provide a framework that allows the discovery of some truth of a particular phenomenon. Constructivists maintain that truth is contextual and ever changing—no discipline has absolute truth. They work with the concepts of many disciplines and use their analytic skills to understand the nuances of the connection between disciplines. This awareness of the complexity of truth prompts them to evaluate continually their assumptions through a method of rigorous inquiry whereby they examine an entire contextual situation. This inquiry is best accomplished through dialogue. Constructivists accept that conflict is inevitable and have a high tolerance for internal contradiction and ambiguity. There is also an awareness that the search for truth is a lifelong quest. Experts and authorities are respected for what they do and believe, not for their status. They are respected for an expertise that includes humility in relation to their own knowledge. Constructivists expect authorities to listen and demonstrate their respect for experience by grounding abstractions in life happenings.

They are passionate learners who "use the self as an instrument of understanding." (Belenky et al., 1986, p. 141)

> Constructivists seek to stretch the outer boundaries of their consciousness—by making the unconscious conscious, by consulting and listening to the self, by voicing the unsaid, by listening to other and staying alert to all the currents of life about them, by imagining themselves inside the new poem or person or idea that they want to come to know and understand. (Belenky et al., 1986, p. 141)

Constructivists rely on empathy and a sensitivity to the internal lives of others to assist in the learning process. Empathy here can be defined as the imaginative sharing of another person's experiences with a view to understanding the experience as they do. It is an accepting and receptive act of caring. There is no need to judge, evaluate, analyze or explain the actual experience although there exists a caring interest in understanding the person behind the experience. (Belenky et al., 1986 & Noddings, 1984) This receptiveness leads many women to live more comfortably in an accepting, believing and open stance towards shared ideas and feelings. This differs from the adversarial, confronting, doubting position that is expected from many learning orientations. These women are deeply attentive to the happening of others, as well as themselves. This attentiveness involves a preference for "real talk," described as,

> Speech that simultaneously taps and touches inner and outer worlds within a community of others with whom we share deeply felt, largely inarticulate, but daily renewed intersubjective reality. (Belenky et al., 1986, p. 146)

Constructivists appear to appropriately function with all three stages of Whitehead's (1957, pp. 15-41) transformatory learning process. They are passionate in their efforts to develop and understand, whether it be abstract conceptual links, the inner meaning of the self, or the complex life experiences of others. They reject loose ends or incomplete thought. So they apply rigorous methods to clarify and add precision to their knowledge through rational analysis

and intense dialogic interaction with others who have the same need to find truth. Constructivists believe that they have a responsibility to communicate their knowledge to others. They have a need to contribute in areas where they can improve the quality of life of others that is the essence of the generalization stages of transformatory learning and the realization of wisdom.

The comparable epistemological perspective in Perry's (1970) study is "relativism" which is characterized by the affirmation of personal identity and commitment. The focus of this commitment differs from the focus of commitment for the women constructivists. Commitment for Perry's men was directed toward career goals, while the women constructivists directed their energies towards relationships and the welfare of the society.

Summary

It is possible to state, on the basis of the research cited, that specific gender-differentiated ways of knowing and general behaviors are manifested in the classroom. As earlier suggested, females appear to demonstrate a predisposition to adopt behaviors in accordance with an orientation of connectedness and intimacy when communicating verbally and responding to authorities, while many men appear to behave according to an orientation of separation and the associated kind of autonomy in these same areas. For example, boys may prefer the public forum of the classroom while girls may prefer smaller more intimate settings. The public environment appears to offer more opportunities for personal displays of formalized knowledge while the intimate climate is probably conducive to sharing experiences.

However, care is needed to avoid hasty generalizations. The discussion so far suggests that the school environment is designed to support an orientation of autonomy as relational separation. But it cannot be concluded from

this discussion that the school is accommodating to most males. Many females appear to demonstrate a predilection for personal, intuitive, experiential ways of knowing while generally, within a limited assessment, males appear to demonstrate a predilection for abstract, analytic, fact-based ways of knowing. Because of limited assessment of the knowing predilections of males and the potential omissions in results, there is insufficient reason or evidence to conclude that many men do not possess any predilection toward the intuitive ways of knowing.

It is possible this difference in predilections is determined and perpetuated more by the school system than by any innate gender differences as it is likely that males and females, generally, possess the potential for all ways of knowing. When any of the ways of knowing are overlooked by the educational system both genders can be deprived of significant means of understanding. For example, it can be reasonably asserted that a rational, analytic way of knowing, as opposed to other ways of knowing, tends to be encouraged through the curriculum and the school environment. Despite the evidence that suggests many men demonstrate a preference for a rational analytic way of knowing, this is not to suggest that the school is necessarily more comfortable for most men than women.

Sufficient information exists to suggest that the school is not equally accommodating to most females and males. In addition, the information presented here suggests that the school is not accommodating to either gender if we are seriously concerned with the most humanly satisfying and significant types of learning.

CHAPTER IV

KNOWLEDGE AND WAYS OF COMING TO KNOW

Introduction

The chapter focuses on the various ways of knowing that have been identified and studied by prominent theorists. A discussion of the issues central to knowledge and ways of knowing will provide a background on which to draw some implications for schooling.

Previously, it has been argued that there is reason to suggest that gender differences exist which could significantly affect the educational experiences that involve knowledge and knowing. It has also been argued that the educational system tends to be determined by a cognitive perspective that appears to be more compatible with men than women. Accordingly, it is necessary to study what is meant by knowledge and knowing to get a sense of what assumptions are being made by writers in the foregoing discussions.

Defining Knowledge

The educational impact of any perspective on knowledge is extensive. A view of knowledge is crucial in determining all the factors that an educational system creates, maintains and defends as necessary requirements in the pursuit of knowledge. Therefore, knowledge as it relates to education determines curriculum content and emphasis, classroom activities, and the type of and significance of evaluations. It also influences the power and status relationships in the classroom, the importance and acceptance of individual viewpoints, and the degree of promotion of mutual respect among all the participants in the school system.

One common meaning of knowledge is "the accumulated expression of established beliefs." (Walker, 1988, p. 68) That knowledge is established beliefs suggests that the transmitted knowledge is considered utterly reliable, and to challenge its validity, especially in school, is not encouraged. If this meaning of knowledge is adopted by an educational system, it is logical to view learning as a transmission of these beliefs from written material to the minds and memories of the students. The expectation is that the student will memorize and absorb great quantities of written material and draw on this bank of information when required.

This depiction of education is reminiscent of Freire's description of banking education,

> Education thus becomes an act of depositing, in which the students are the depositories and the teacher is the depositor. Instead of communicating, the teacher issues communiqués and makes deposits which the students patiently receive, memorize and repeat. This is the "banking" concept of education, . . . (Friere, 1970, p. 58)

Propositional Knowledge

The knowledge that governs the school curriculum in North America tends to be almost exclusively propositional knowledge. This type of knowledge emphasizes the objective, intellectual, conceptualized acquisition of information based on established beliefs in science, geography, history, etc. (Reid, 1986, p. 5). For the purpose of this discourse, propositional knowledge, or what Reid refers to as discursive knowledge, will also be referred to as 'formal knowledge' or 'knowledge that.' However, it must be noted that knowledge that can also be acquired informally when it is propositional knowledge. The very nature of knowledge of this kind requires a strong emphasis to be placed on the acquisition of language and numerical skills. (Reid, 1986, p.1) In this form,

knowledge is comprised of words, statements and numbers amenable to empirical or theoretical verification—a form that is highly influential, even without organized teaching. "What we learn by learning a language is one way of looking at the world." (Pring, 1976, p. 14)

Propositional knowledge is grounded in analytic thinking. According to Bruner (1977), analytic thinking usually proceeds step-by-step. The steps are explicit and the thinkers are aware of what they are doing and can verbalize the process. The process can involve deductive reasoning in logic, or it can be an inductive reasoning process using research design and statistical analysis.

Russell (1967) describes propositional knowledge as knowledge by description. It is a knowledge of abstractions or universals and the description is given in these generalities. The description of a coffee shop might consist of booths and one large jukebox, with pictures of antique cars on the wall. This picture cannot begin to reveal the atmosphere of the cafe or the contribution to the milieu of the diners occupying the booths. According to Russell, acquaintance-knowledge or knowledge gleaned directly by being there is required for a truer picture of this particular coffee shop. Thus Russell's distinction points clearly to epistemic limits in propositional knowledge.

Propositional knowledge usually represents information 'owned' by others, rather than constructing or experiencing for oneself. This means the student's school experience is like being told about yesterday while living today. To ignore experience and rely on propositional knowledge is similar to rowing a boat–always looking behind to confirm your path, rather than looking ahead to seek new routes. In this regard propositional knowledge is bounded, and without a recognized grounding in experience it cannot reliably relate to the present or future awareness of any individual. Statements are difficult, if not impossible, to question or refute when we exclude the experience of the person from the

learning process and place the factual knowledge in the exclusive control of the educator. The teacher, here, creates an authority-submissive relationship.

However, as Robbins puts it:

> And I cannot help you understand. In the realm of the ultimate, each person must figure out things for themselves . . . . Teachers who offer you the ultimate answers do not possess the ultimate answers, for if they did, they would know that the ultimate answers cannot be given, they can only be received. (Robbins, 1984, p. 383)

We might question whether any propositional answer can be given, if the answer is to represent a genuine advance in the overall understanding of the learner. Baker (1992) expanded on this in her address on *Gender and Literacy*, stating that propositional knowledge is usually represented to the student in text form where the statements are provided from one point of view. Unfortunately, according to Baker, the teacher is likely to perpetuate the illusion of the absoluteness and the infallibility of the written fact, belief or value. She sees teaching literacy, as it normally functions, as a means for teaching about schooling, particularly encouraging the authority and expertise of the teacher. To illustrate this, Baker asked where, other than school, does anyone ask a question of another while already aware of an answer, at least the answer they want. This line of thinking is further elaborated upon by Pring (1976). He sees the teacher involved in providing students with a selected means of organizing their experiences. By insisting on a given set of concepts, the teacher in effect is saying, "fit your experiences, feeling and insights into this framework of thought." The teacher may not say this is the only way of thinking, but in an authoritarian relationship where only one worldview is presented, the student is likely to perceive the presented framework of authority as the only one.

> One can never say, "This is *the* way" or "This is *the* concept"! Hence in helping a child to acquire concepts, we are teaching him

> to attain what has been formed by others. We are teaching him the adult's or the specialist's way of organizing experience, not *the* way. (Pring, 1976, p.15)

Knowledge can be confused with the mere gathering of information. It is possible to be informed of a particular factor but still not know it. For example, unless the student understands the significance and the interrelatedness of the equation $E = mc^2$, it is only information. It cannot be considered knowledge for this person. The attempt to transmit knowledge encourages a passive-learning process. From the student's point of view, memorizing information is a passive process that engenders an inert, lifeless view of learning in order to become competent and master so-called life skills. This emphasis on a lifeless body of knowledge, rather than on the student's active investigation of ideas, tends to produce a person who is stagnating in intellectual development through a preoccupation with inert ideas, "that is to say, ideas that are merely received into the mind without being utilized, or tested, or thrown into fresh combinations." (Whitehead, 1957, p. 1) Despite the societal allegiance that is given to this view of knowledge and its acquisition, it is only one view.

Interactive Knowledge

Pring (1976) presents another interpretation of knowledge representing other facets of knowing and coming to know based on a paradigm that claims people are always involved in the social process of constructing, changing and sustaining their worldview and their world. This process is interactive and requires the participation of all participants, including students. People imagine their world to be a coherent, overall life-context and pursue a lifelong quest to make sense of it. In this interpretation, knowledge is identified as a process, as well as an end state. This view of knowledge recognizes various ways of

organizing and interpreting experiences, including the student's own defensible interpretation of reality.

The perspective on knowledge and knowing as 'alive' rather than 'inert' alludes to epistemological superiority, being representative of the natural capacity and desire of the human mind to understand. Therefore, it is also seen as educationally superior. Whitehead claims that for knowledge to be "living," it needs to be seen by the student as a meaningful part of the student's life, not merely someone else's words. This requires the student to be active in a process of discovering the meaning, importance and truth of knowledge through inquiry. The most important element in this process is the student, who has the autonomy to examine information with a goal of discovering what is crucially true.

> Theoretical ideas should always find important applications within the pupil's curriculum. This is not an easy doctrine to apply, but a very hard one. It contains within itself the problem of keeping knowledge alive, of preventing it from becoming inert, which is the central problem of education. (Whitehead, 1957, p. 5)

Inquiry and Ways of Coming to Know

Pring (1976) states that inquiry is comprised of numerous activities, and conceivably there are as many varied methods of inquiry as there are subjects in the curriculum. For example, inquiry may:

- occur as a solitary pursuit using personal observation and existent knowledge
- take place in community with others who share similar interests and problems
- be highly structured with the intent of reaching a solution or completing a project of interest within a specific time frame

- be a free-flowing inquiry where the students share a willingness to pursue a problem or interest within a loose framework without a specified deadline.

Pring stresses that the overriding element in all methods of inquiry is its origin which is within the student. The activity of inquiry begins within the student and is activated and sustained by the interests, desires and other aspects of the student's rich inner mind. Inquiry begins with a problem that requires a solution, with an interest to further the understanding of a particular matter.

> Hence it would be mistaken for the teacher to present the product of enquiry (others' enquiries) as though it were meaningful in itself, as though it were true or false independently of either the problems for which it is a provisional settlement or the process by which it has been reached. (Pring, 1976, p. 57)

The belief that inquiry is a valuable educational activity is based on the premise that only material that is viewed as useful, meaningful and of interest to the student will be valued as educative by the student. (Pring, 1976) "The mind will be expanded, enlightened and extended only so far as the current interests and curiosities of the child will permit." (Pring, 1976, p. 50)

In this instance, inquiry can be defined as,

> the activity of systematic truth discernment; by which alone the individual will properly make her own judgment as to whether or not a belief is well enough warranted to be treated as true, as knowledge. (Walker, 1988, p. 71)

The truth that is discovered by the student and seen to be important is "owned" and cherished. Traditionally, a question is asked not for inquiry but with an objective of receiving a right answer. Rightness is determined by the body of knowledge that is not to be questioned. Therefore, questioning is limited in the manner of "banking education." (Taylor, 1993, p. 54)

When knowledge is regarded as a commodity or external entity, not as the outcome of joint activity, it becomes an independent item that exists to be consumed or imposed. This view of knowledge does not involve a journey to be undertaken with the interests, realities and characteristics of the travelers co-determining the path. Accordingly, the function of the school and the aim of education becomes the transmission of the commodity–the previously created propositional knowledge.

If the knowledge is a thing to be consumed, it is tempting to evaluate knowledge acquisition or learning in terms of how much has been consumed. Naturally, this leads to tests that measure "how much" subject knowledge has been consumed and retained. For example, a child in grade two must obtain a quantity of information, including information about the basics of reading, writing, language and mathematics prescribed by the curriculum for grade two. With this perspective on knowledge, the basics become the prime goal of education rather than tools to be used to further growth and development. This is apparent in a recent attempt by the Alberta Department of Education to influence the direction of education. "The school's first obligation is to ensure students receive a thorough base in reading, writing and mathematics." (*Meeting the Challenge–An Education Roundtable Workbook*, 1993) The meaning of a "thorough base" is unclear. It is unclear whether "thorough base" implies an abundant exposure to reading, writing and arithmetic, or whether it implies the well understood and applicable results of inquiry and experimental practice.

If knowledge is an entity, it can fit into 'subject' categories for the convenience of those determining the curriculum and administration of education. Not only are decisions made regarding the boundaries of individual subjects (such as social studies, biology, art or music), but the relative worth of each subject is evaluated. Thus, we see students and educators using the terms

"hard sciences" and "soft sciences." Hard sciences are those subjects that have most credibility and are characterized as "need to know," like physics and statistics. Soft sciences are subjects that are believed to be of less precise epistemic value and defined as "nice to know," like art and philosophy. Therefore, what message is given to a child who must miss music in order to complete an unfinished language arts drill? And why is music not considered an important subject to be learned? Clearly there is a system of values tacitly operating that needs to be thrown open to a more deeply critical scrutiny.

Courses can be weighted on the basis of the perceived importance so that courses designated 'need to know' have a higher weighting than courses defined as 'nice to know.' If statistics has a 5-weighting and communications a 3-weighting, the students are given a message about the relative importance of the two courses. They are also aware that their mark in statistics is going to have the greatest effect on their overall average and that is where the learning emphasis must be.

Propositional knowledge, defined as an entity, is bounded, and on authority, it can only be what already exists in the curriculum. There is no place for input from outside the body of knowledge that would encourage growth, replenish or evolve the knowledge. It is further bounded because the student only defines knowledge as that which already exists independently of himself. The forced passiveness created by bounded knowledge was dramatically portrayed by a high school student that I know, who stated that all students plagiarize, including himself. His justification for this behavior was that the information belonged to someone else, and he had no ideas to contribute. "It has all been done, there isn't anything new to add."

> The passive reception of a belief is not understanding, but cognitive submissiveness—in effect, the cessation of

> understanding as it is lulled into mechanical routines of thought and related action. (Walker, 1988 p. 56)

The unquestioning acceptance of the views of prominent others, whether an author, a theorist, or teacher, denies a need for the critical evaluation involved in meaning, importance and truth discernment. (Walker, 1988, p. 56) This is not to say that what is presented to the student is not true, right or applicable at the time it is being studied. The critical factor is the way in which it is pursued by teacher and student.

Scientists test, collaborate and seek alternate explanations in their attempt to appraise and justify a theory as knowledge. Not to provide this experience of inquiry for the student is anti-educational. For example, it is possible that a particular train of thought could become significant dogma around which students may unquestioningly organize their lives. For example, students may recognize the market economy as the most significant factor in society and envision the world and their lives only in terms of production, marketing and sales. A student of my acquaintance, two years after graduation, said, "The company I work for, Proctor and Gamble, isn't into philosophy, we are too busy buying up products around the world. The North American population is aging and we are buying up cosmetic products to meet the needs of an older market." The conclusion (apart from the epistemological confusion, an unavoidable evil of teaching as transmission) is that it opens the way for the working of the "disconnected" intellect on the world. (Walker, 1988)

> By this we can come both to value what harms us, and suffer a withering of sensitivity to living beings though neglect and through the "distancing" effect of a rationality which loves the harmony of ideas more than the harmony of life. (Walker, 1988, p. 61)

> Education with inert ideas is not only useless; it is, above all things, harmful. (Whitehead 1957, p. 1)

Disconnection is encouraged from the start by ignoring the minds students bring with them to the classroom:

> W.H. Kilpatrick . . . denied that the aims of the school were "conventional knowledge or skills." The alternative starting point was the actual present life of the boys and girls themselves, with all their interests and desires, good and bad; (Pring, 1976, p. 47)

This quotation from Pring is not so much in support of "progressivism" as the recognition of the fact that students bring a varied wealth of thoughts, ideas, wants, feelings and interests with them into the classroom. To ignore this rich array of characteristics of the already active and informed mind would, in effect, become non-educative. (Pring, 1976) For all its questionable tenets, the child-centred philosophy as promoted by Dewey or Kilpatrick does define education as effecting change that is a transformation of the student, brought about by the student's interested and actively critical attainment of deepened understanding.

This view places the main emphasis of education on the student's growth through understanding, not on the formalized knowledge, curriculum or the teacher. It involves an ethical conviction about respect for students and all the characteristics they brings to the classroom. Concerns for the interests and interest of students and respect for students are interrelated. To attempt to ignore those areas of life that are of most interest to children is to discount the children and all that they are. Simply imposing an institutionally determined hierarchy of subjects on students is disrespectful to them as people. Forcing oneself to engage in work that appears to lack value is demeaning and degrading from the standpoint of respect for personhood. (Walker, 1988, p. 96) Students are able, to some extent, to order values for themselves. My six-year-old makes some thoughtful decisions based on the question of what is more important, people or things, and puzzles as to why people often choose things.

Thus, there is already an active mind to expand here, not just a container in which to add things.

Kilpatrick (as cited above in Pring, 1976) presents a noteworthy perspective. He asserts that the emphases, both epistemological and ethical, placed on respect for personhood in the definition of education, and the realization that education occurs only if there is a transformational change in the person, is of extreme importance. Although others subscribe to these ideas without accepting Kilpatrick's total philosophy, one underlying idea is clear: "To acquire knowledge is to understand the truth of some matter for oneself." (Walker, 1988, pp. 94-95)

It must be stressed that transformational change of the person as a whole and as critically self-activated, is radically different and more personally revolutionary than the change in behavior, or accepted theory, as a fragment only of the person—a different meaning of "understand" is involved. "Someone whose understanding has changed is a changed person." (Walker, 1988, p. 83)

The Transformational Learning Process

Whitehead provides a useful analysis of the transformational learning process. He proposes three essential stages to this process as natural to the mind wishing to understand. (1957, pp. 15-41) First, the "romance" stage of knowing arises in relation to the natural, living interests and needs of the student. The mind may be excited, bewildered, confused, dismayed, delighted or puzzled and, whatever the emotion, aware that something new and important is to be discovered. This is the foundation of understanding in its natural movement. Without the wonder and passion of this discovery period, inquiry has insufficient energy of purpose to proceed. Because a proper foundation, as implied by "stages," is essential to further transformational realization, the

romance stage cannot be rushed or denied without harming the desire and capacity to learn.

Second is the "precision" stage, which includes the exactitude of thought and the systematic search for truth. This stage checks for factual correctness that was inappropriate in the romance stage but is an essential and naturally desired step in the second stage of the transformational learning process. The precision stage is where the exactitude of propositional knowledge is so often needed. This knowledge will be sought after and often constructed by the student who recognizes its relevance and usefulness in understanding and satisfying a need to know. Seeking answers to questions that burn inside the student is a critical transformational stage. Answers to these questions have the power to create, through understanding, significant changes in the student.

Next is the "generalization" stage. In order for a transformation to occur, understanding must be integrated into the basic outlook of the person. The new understanding needs to be put to use, have some effect on others or the theories of others and provide meaningful new connections for ideas or new quality applications, solutions and corrections. In short, the generalization stage is necessary in order that the learning, *seen* to be effective, "can effect some lasting transformation of understanding and life." (Walker, 1988, p. 80)

These precise ideas can be used to expand meaning or to improve action models. Meaning and action must be intertwined for a transformation that translates to a quality of life betterment. In the most serious sense of 'educating,' transformation must in some manner answer the need for a better quality of life and the desire and ability to act to realize that desired state. This is a position that relates to freedom and wisdom, where humans are capable of seeing and imagining varied future states and have the capacity to weigh the worth of alternative futures. (Walker, 1988, p. 53)

There is a cyclical element in this transformational learning process. When the generalization stage is satisfied, the mind is ready to be activated by new questions, feelings, interests and desires and the romance begins again. Since what is organic grows with proper nurturing, each cycle of the process increases the mind's capacity to effect transformation so that, in fact, it is also possible for the desire to understand to become stronger over time. The natural desire to learn is intensified rather than diminished.

> I do not share in this reverence for knowledge as such. It all depends on who has the knowledge and what he does with it. That knowledge which adds greatly to character is knowledge so handled as to transform every phase of immediate experience. (Whitehead, 1957, p. 32)

Transformational Learning Dialogue

A facilitating process of communication and teaching for transformational learning is dialogue. The etymology of the word dialogue shows that "dia" means "through" and "logos" means "word," or more specifically the order involved in having a meaning. Bohm refers to dialogue as "a *stream of meaning* flowing among us and through us and between us." (Bohm, 1990, p. 2) Dialogue was the way of teaching for Socrates. More recent advocates of this mode of teaching and learning for adults or children, or both, are Bohm and Peat (1987), deMare and Thompson (1991), Kreeft (1984), Krishnamurti & Bohm (1985), and Mathews (1984).

Dialogue, as a process of communication, is distinguishable from other ways of interacting with which it is often confused, such as debate, discussion or conversation that are generally expected in school. These other forms of interacting tend to have an underlying objective to maintain the values, beliefs and assumptions of the person or institution. Dialogue, on the other hand, is precisely the critical exposure of these hidden assumptions in a collaborative

search for truth. It is a serious inquiry for those who realize that they do not know something that they need to know. The seriousness of dialogue is the intense desire to discover something true. The truth may tear apart the values, beliefs and assumptions that the person possesses but there is an acceptance that this is the price for truth.

Dialogue, though capable of indefinite refinement, is a very natural process of communicating. This is evident in the natural quest for truth in joint discovery that is seen in children. (Mathews, 1984)

> That it should be so natural is really not very surprising, since dialogue implies a way of being in relationship, and although our language often seems more suited to thinking in terms of an atomistic world-view, in fact we are in a world of relatedness. (Walker, 1994, p. 4)

Propositional and Procedural Knowing

In his analysis of knowledge, Pring (1976) presents a useful distinction for the discussion between "knowing that" and "knowing how" information. "Knowing that" information is the propositional statements of conceptual structures including the reasoned arguments to support the statements. The laws of mechanics, for example, fit this category. "Knowing how" information is the procedural knowledge required for performance and does not necessarily require a conceptual understanding (for example, riding a bicycle). Pring also suggests that "knowing that" information is not always the best means to understand procedural knowledge. For example, theoretical knowledge about group dynamics cannot replace what can be learned by actively participating in groups. Furthermore, much of the "knowing that" information is procedurally unimportant because it is presented as if disconnected from the very practical worldview. (Pring, 1976, p. 19) Theory is often presented to students by the

teacher or text book as an end-state learning objective without any reference to its place in life as the student is familiar with it.

> We are so concerned with "knowing that" (possibly because of the greater ease with which it can be examined on a large scale) that we forget that much of this kind of knowledge is a very sophisticated reflection upon "knowing how," an attempt to make explicit and put into statements the principles that are already operating in successful practice. (Pring, 1976, p. 19)

Intuition and Intuitive Ways of Coming to Know

Another kind of knowledge, related to "knowing that" and "knowing how" information, that is very different from propositional knowledge is provided by intuition. Many scientists, laymen and philosophers would deny that intuition is a form of knowledge. However, Reid assumes a radically different position when he states that intuition, as he defines it, is so encompassing that it is present in all possible types of knowledge.

> There can be no knowledge of any subject—mathematics, and science or art, philosophy, history—or any value without at many stages direct intuitive grasp of the subject matter, parts in relation to wholes. (Reid, 1986, p.28)

If this is so, understanding and encouraging intuition is hardly of small educational import. What definition does Reid assign to intuition that the word can be associated with the entire range of knowledge? He does not believe that we must assume that intuition is something divorced from reason although not all intuition will necessarily involve a consciously-directed thinking process. "Though the absence of explicit reasoning is certainly a general character of intuition, we ought not to assume that intuition is thereby cut off from reasoned thinking." (Reid, 1986, p. 28) Some intuitions may be clear and immediate while others may be vague. Reasoning may be apparently absent or, as in the case of mathematical axioms which are "usually regarded as intuitively accepted" (Reid, 1986, p. 28), an assumption of reasoning can be assumed.

> As well as having intuitions of particular and individual things, we can intuit abstract concepts, universals, axioms, the laws of thought, conceptual relations, systems of ideas. (Reid, 1986, p. 27)

This suggests that intuitions play a significant, and probably irreplaceable, part in our lives. Indeed, it may be arguable that intuition is a requirement for the recognition of any of the connectedness needed for anything to become meaningful.

Although it is unclear what is the nature of intuition and difficult to identify intuitive ability, Bruner offers the following definition:

> Intuition implies the act of grasping the meaning, significance, or structure of a problem without explicit reliance on the analytic apparatus of one's craft. (Bruner, 1977, p. 60)

Intuition does not move smoothly and methodically from one well-defined step to another as does analytic thinking. Intuition moves seemingly chaotically between factors within a tacitly grasped framework of the total picture or problem. The person may be unaware of the factors involved in the intuitive process as well as the actual process.

Experience with a particular body of knowledge can be an influential factor in intuitive thinking but often insights and paradigm shifts are instigated by outsiders who are not bound by the rules of analytical thinking. All disciplines, from science to history, rely on and benefit from intuitive thinking although it appears to be most consciously valued in the fields of mathematics and physics. However, any propositional knowledge can only come into being (as knowledge or belief for the person) with a basis of intuition. It is the truth of this initial intuition of the scientist or innovator that is ignored and omitted in the transmission of propositional knowledge. This is a regrettable omission.

> Why is the history of science, especially the biography of scientists, neglected on science curricula–one way surely of gaining imaginatively an understanding of what science is and has been about? (Pring, 1976, p. 63)

What is the relationship between intuition and knowing? There is an obvious aspect of "subjectivity" to intuition in the sense that it is a particular person intuiting, it is spontaneous, and the result may not be amenable to accepted modes of expression and verification. The same can be said of all mental processes, although conceptualized processes that have been externally introduced and analyzed in the school, by parents, the church or peers are not purely personal. I accept that intuition may be strongly affected by externally imposed conceptualized processes, but what the person does with the intellectual components to be intuitive is very personal, especially in the sense of being unpredictable, and obviously requires a certain minimum freedom of perception and thought.

In order to explore the relationship between intuition and knowing, it may be helpful to broaden our understanding of the word 'knowing.' What is happening when a person says "I just know that"? What is knowing? *Webster's Seventh New Collegiate Dictionary* (1967) defines knowing as: "to perceive directly, to have direct cognition of, to have understanding of, to have experience of, to be aware of the truth or factuality of, to be convinced or certain of." (p. 469) According to this view, knowing implies a state of being rather than a process of attaining the state of knowing, even though the process of attainment is found in the definitions. Knowing requires direct perception, direct cognition or direct awareness. Knowing must also include an understanding of the phenomenon in question. Finally, and most distinctively, to know is to be aware of, in fact convinced of, certain truths. For example, an awareness of truth is quite different from the formal and accepted expression of scientific truths that are offered in a propositional knowledge framework. In propositional knowledge the truths are with the teacher or textbook. In the state of knowing, the truth, recognized as such, is an integral part of the person, the learner. It follows that

knowing, in its serious and precise meaning, is a holistic experience, an acute awareness and genuine enlightenment of some aspects of the world that effects an irreversible transformation of outlook for the person.

If the state of knowing requires direct, personal awareness (including truth and falsity), it will be the result of an individual's process of searching for knowledge that implies personal "ownership." Truth-finding, as an individual personal search, can be agonizing and tumultuous, and is always empowered with feeling and imagination. A truth so discovered is felt to be personally 'owned' and empowering. Krishnamurti and Dewey try to capture this passionate involvement of the person as a whole:

> To educate the student rightly is to help him to understand the total process of himself; for it is only when there is integration of the mind and heart in everyday action that there can be intelligence and inward transformation. (Krishnamurti, 1953, p. 45)

> But when one neglects the connection of these scientific objects with the affairs of primary experience, the result is a picture of a world of things indifferent to human interests because it is wholly apart from experience. .. . .Hence when it is viewed as fixed and final in itself it is a source of oppression to the heart and paralysis to the imagination. (Dewey, 1926, p. 11)

Acquaintance Knowledge. Dewey sees acquaintance knowledge as going beyond mere propositional knowledge when it involves judgment as to the interaction of an object in question with other objects. Acquaintance with a person involves insight into their attitudes, feelings and actions. It is a knowing with intimacy, directness and interaction.

> Where there is acquaintance, there is an immediate emotion of participation in the situations in which the object of acquaintance engages, sympathetic or antipathetic according as readiness takes the form of a disposition to favor or to hinder. (Dewey, 1926, p. 330)

Propositional knowledge can become acquaintance knowledge when, in experience, we understand clearly or have a "realizing sense" (Dewey, 1926, p. 330) of a particular object of knowledge. This takes us immediately to a consideration of 'insight.'

Insight. What is the intuitive way of knowing of insight that is respected in some fields and what precipitates the occurrence of insight? Bohm has the following to say in his essay, *Insight, Knowledge, Science and Human Values.* Insight is an inward perception,

> not only in the sense of *looking into* the very essence of the content that is to be known and understood, but also in the sense of looking into the mind that is engaged in the act of knowing. (Jayakar & Patwardan, 1983, p. 42)

Both must occur together. Insight occurs when the person has an awareness of a phenomenon that goes completely beyond the accepted conceptual framework of that phenomenon, and it appears to happen unpredictably in relation to any obvious direct conceptual input of focused inquiry. It is here we might distinguish insight from intuition, since intuition can take place entirely within the field of what is currently thought to be the known.

Insight is an active, powerful immediate awareness of "what might be called the *knowledge process.*" (Jayakar & Patwardan, 1983, p. 45) Tremendous insight happens in a flash without an awareness of an elapse time. It is a total and immediate experience, the essence of which cannot be captured in thought. An experience of insight cannot be consciously wielded or forced. Insight is a mental energy that breaks through the rigid structures of beliefs and ideas so that new responses are highlighted. The energy of insight allows the person's existent knowledge to be thrown into question in a manner so intense that potent inquiry results.

The essence of insight is an intense mental energy that penetrates the powerful forces in knowledge which keep tight conceptual grips on the mind, and breaks through those rigid conceptual structures to "something on the other side." It is at this point a "through the mind" process. (Jayakar & Patwardan, 1983, p. 42) The mind is freed for new understanding and new responses.

A major mental barrier to the discovery of truth is hubris—an assumption of having the absolute truth of an idea or a belief. It requires passion and strong energy of mind to question the fiercely-held ideas with true humility in order for genuine rationality to prevail. (Jayakar & Patwardan, 1983, p. 47) In summary,

> insight is an act of perception, permeated with intense energy and passion, that brings about great clarity. This makes possible the dissolution of strong but subtle emotional, linguistic, intellectual, social and other pressures that tend to hold the mind in rigid grooves and fixed compartments, and so cause it to avoid fundamental challenges. From this germ can unfold a future perception not contained in the previously existent field of the known, . . . This perception includes new forms of *imagination* and new orders of *reason*. (Jayakar & Patwardan, 1983, p. 47)

Therefore, it is possible to think of insight in terms of imaginative insight and rational insight. Imagination that flows freely without blocks may give rise to imaginative insights for the poet or the artist. Rational insight occurs when the barriers fall in the areas of science, history and philosophy. It must be stressed that insight can be a powerful energy of fresh understanding and change in all aspects of life.

Awareness and Attention. Let us move on to examine the related notions of "'awareness" and "attention," as to their meaning and function. Bohm and Peat refer to consciousness as "the total state of *knowingness* of the individual," having a subtle mental side and a manifest material side. (Bohm & Peat, 1987, p. 212) They propose that the integrity of the whole of consciousness comes about through attention and awareness. Awareness is

crucial in the process of coming to know. Awareness does not respond to organized knowledge, but it is the source of all information that can become knowledge and all that is meaningful in consciousness.

> The term *conscious awareness* is in fairly common usage, and is taken to mean a consciousness (i.e., a knowingness) that is pervaded, to one degree or another, with a sensitivity to the immediate processes of environment, body, and mind. (Bohm & Peat, 1987, p. 213)

Much of consciousness is inaccessible. This includes the "tacit infrastructure of ideas" that tends to be outside the area of awareness. (Bohm & Peat, 1987, p.214) It is desirable that the infrastructure is outside the area of awareness as it allows this body of knowledge to operate without deliberate conscious focus so that the mind is free to pursue those endeavors that require conscious awareness. However, it is possible for the "tacit infrastructure of ideas" to become rigid and inflexible and an inhibitor to effective awareness.

Attention is closely related to awareness although there is a connotative difference. Attention is an inner activity "stretching the mind toward something." (Bohm & Peat, 1987, p. 214) It is this activity of scanning and grasping what exists in the material knowledge and awareness aspects of consciousness that brings about the integration of consciousness at progressively more subtle levels. Inflexible positions in the "tacit infrastructure of ideas" in consciousness have the same undesirable effect of preventing the effective functioning of the activity of attention. Awareness and attention require freedom from rigid thought patterns and biases in order to operate effectively. When inappropriate biases and rigid assumptions occur, a "kind of unawareness and inattention takes place whereby parts of the mind are inhibited." (Bohm & Peat, 1987, p. 215)

The discussion of intuition can now be extended using the notion of attention, particularly as it appears in Krishnamurti's thinking. Significant

differences exist in the processes of acquiring and expressing propositional knowledge and the occurrence of intuition. Intuition, which seems to resemble Bohm's "insight," requires attention while formalized knowledge relies on concentration. Krishnamurti (1975) refers to concentration as a narrowing, deliberative process for the mind where the person is confined to a relatively limited area of knowledge that relates to a particular concern or falls within a specified domain or discipline. Religious belief is one example of concentration from one perspective causing 'inattention' to others. Similarly, there is the difficulty many North American doctors have accepting the healing potential in Eastern medical practices such as herbs or acupuncture. Since concentration is associated with an additive process, this less scientific aspect of healing cannot become a dimension of the practice for North American doctors. Merely adding up all the parts does not give the sense of a whole, which is the issue from intuition.

This does not mean that concentration and propositional knowledge are not of value, for when in a state of attention the mind will often tacitly use knowledge. "Knowledge is necessary at the functional level as a means of cultivating the mind, and not an end in itself." (Krishnamurti, 1953, p. 18)

In Krishnamurti's discussion, attention is of ultimate importance in the knowing process although it cannot be taught or learned. Attention implies a freedom and flexibility that cannot occur when the mind is controlled or concentrated by memories and experiences. To be awakened, attention requires an environment that is free of any processes that create fear. Many of the overt and covert practices of traditional learning have fear as an intentional or inadvertent component. The obvious process is conditioning with the use or abuse of rewards and punishment. Although less obvious, other heavy fear

components are those that use persuasion and emphasize comparison, pursuit of success, acquisitiveness and obsession with achievement.

The environment for the cultivation of freedom of attention in the individual is patience, gentleness, courtesy; an environment of equality, mutual respect and cooperation. Krishnamurti emphasizes that the recognition of the importance of these qualities in education, as in all of life, is a matter of intelligence.

> While you are young, the teacher may point out that you do not know. But if he is at all intelligent he will help you to grow to be intelligent also; he will help you to understand your confusion so that you do not seek authority, his or any other. (Krishnamurti, 1953, p. 36)

Intellect and Intelligence

Recognizing that feeling and thought are not fragmented activities in attention implies wholeness. Now I will pursue wholeness through another related line, and compare intellect and intelligence along the lines suggested by Krishnamurti (1953). Intellect as such, is thought as distinct from emotion, so there could be a separation of thought and feeling. This would be a fragmentation of the person. Intelligence involves the whole person, feeling and reasoning, where there is an integration of reason and feeling. Intelligence is creative where ideas are alive and lead to new, dynamic and vital ideas and behaviors. Facts, theories and explanations create highly intellectual people, but this intellect can be a hindrance to intelligence. The pursuit of propositional knowledge requires reason and thought but it typically excludes feelings, and both are required for intelligence. Because knowledge is not intelligence, it cannot be wisdom. Wisdom requires an open mind, not one determined by the theories and ideas of others.

Krishnamurti points out two problems that appear to exist. The first problem is that with weak and disconnected feeling power, there is a lack of integration of the person, who cannot then act effectively and wisely in the distorted, unbalanced personal state. The second problem is that the more we seek and acquire formal knowledge, the more the feeling, sensitive part of ourselves tends to be lost until it is utterly overridden by the theories, facts and explanations, all of which are devoid of compassion, acceptance and beauty. (Krishnamurti, 1953) Thus Krishnamurti reminds us of where the richness of life actually, and with great fragility, lies.

Wisdom

Midgley, also concerned with the quality of life and knowledge fragmentation, emphasizes that knowledge and understanding cannot responsibly be viewed as goals in themselves. They exist to be used to improve our ability to act, internally and externally, in ways that improve the quality of human life and the quality of the world. Wisdom is there if the person uses the understanding to act intelligently and humanely in relation to the world.

> Thinking out how to live is a more basic and urgent use of the human intellect than the discovery of any fact whatsoever and the considerations it reveals ought to guide us in our search for knowledge, as they ought in every other project we pursue. (Midgley, 1989, p. 21)

However, if we are not, in sorting all this out, to be caught in some one-sided romanticism, we must consider the issues critically still further.

Feelings and Ways of Coming to Know

"We no longer feel as soon as we think." (Mendelssohn, cited in Reid, 1986, p. 14)) This statement certainly asserts that feeling cannot be a part of knowing in the familiar sense of a product of thought or rationality. However, is it true that feeling is excluded as soon as we begin to think? After all, many

philosophers and psychologists (James, Whitehead and Bradley to name a few) have been caught blatantly using the term 'feeling' in connection with the term 'cognitive.' My own experience makes it impossible for me to accept that feeling stops when thinking begins. Before providing specific personal examples, I will examine what is meant by cognitive feelings from Reid's (1986) perspective.

It is reasonable to claim that feeling has been ignored and disparaged when it relates to the part it might play in cognition. Feeling does not lend itself to a scientific observation and analysis; nor can it be clearly and factually clarified in propositional statements, and it *can*, as we all know, jeopardize the objectivity of inquiry. Perhaps this is why such noteworthy philosophers as Descartes, Hume and Plato found it "rationally correct" to separate reason and feeling. Reid views feeling, which is not identified with emotion, as an integral part of the entirety of the conscious life of the human being. A major aspect of this conscious life is its relationship of cognition and feeling. If, as Langer claims, "Feeling is a living process becoming aware of itself" (cited in Reid, 1986, p. 18), then that awareness of itself must involve content, or if I say "I feel," I must feel *something*. Awareness of some definite thing in feeling indicates cognition. However, although it is safe to say feeling is always present throughout conscious life, we are not necessarily conscious of it all the time. Brushing my teeth has become so habitual that the actual consciousness of the feeling can be so weak that one hour later I may not have a recollection as to whether I actually did it.

Another problem with assessing and assigning feelings in a situation is the complexity and the range of our feelings and the fact that no name exists for many of our feelings. My six-year-old found herself in a compromising situation with another child that involved my daughter accepting a toy on the condition that she share her snacks. This arrangement existed for two months before I was

informed and my assistance to get out of the situation was requested. When asked how she felt about this arrangement in the relationship with her classmate, my daughter's response was "I feel bad, I didn't know I would feel this bad." Although this account of feeling is very imprecise, there exists a definite awareness of experience that has an obvious cognitive aspect. There was cognitive feeling for this child as she gained awareness of one aspect of the relationship with her friend. "Feeling is immediate awareness of human experience from the inside, and as such cognitive." (Reid, 1986, p. 20)

If feeling is the awareness of human experience and awareness is required for any cognition, be it in reason or intuition, it follows that feeling and cognition are interdependent and that cognition cannot exist without the initial immediate awareness we call feeling. "If feeling or immediate awareness is present throughout waking life, it follows that we cannot think or cognate without feeling." (Reid, 1986, p. 24)

How does this relate to two important areas of life and knowledge, namely, knowing art or aesthetics, and understanding persons and the morality involved in interpersonal relations? These are areas that so obviously seem to require a strong interrelationship of feeling and cognition.

Art As A Way of Coming to Know

Is there a specific mode for learning in the arts that is a combination of knowledge attainment methods? Do the same modes of knowing of art also apply to understanding persons and morality? Hirst (1974) in his paper *Literature and the Fine Arts as a Unique Form of Knowledge* (pp. 152-164) compares literature and art to science. He believes the observable features of art act as words that contain meaning and therefore, make a statement. This statement, like all propositional statements in science and mathematics, can be judged to

be true or false, and this can be considered knowledge. Certain problems appear to exist in Hirst's view of knowing art as being similar to knowledge of science. Predefined rules and standards exist in mathematics and science so that propositional statements in these areas can, in theory, be true or false. For example, the rule that multiplying two negatives produces a positive makes the statement -2 x -2 = +4 true. The purpose of rules in science and mathematics is clear and certain defined paths are to be followed.

However, the function of rules and absolute standards in art is less clear, and it is likely that definitive rules could only have the effect of stultifying and distorting. (Pring, 1976, p. 43) Joan Miro and Pablo Picasso began their artistic lives as realist painters, but both moved from realism through various stages of abstraction in art. Therefore, any discussion of their works requires concepts and words, "knowledge about" or "knowledge that", which poses the following questions:

- Does it make sense to ask if their artistic endeavors in realism were more true or false?
- What criteria would we be using to determine truth?
- Do we want criteria to determine truth in art?

I cannot argue with Hirst (1974) that some amount of propositional knowledge is necessary for the knowing of art. However, I feel that more than propositional knowledge is required for complete and meaningful understanding of any art form—be it poetry, painting, music or dance. I agree that often truth is a significant goal in the quest for understanding of art in all forms, but perhaps it is a different kind of truth, or a truth that requires a broader base of understanding than can be provided solely by propositional knowledge.

Knowledge of science and mathematics can be attained through traditional modes of learning by reading relevant material and listening to

accomplished experts. But to know something in the confrontation with or creation of art one must go beyond these methods. Direct experience is required to know and value the truth in art. "An art 'statement' can only have its aesthetic existence as experienced, as felt, as known, by a person or persons." (Reid, 1986, p. 42)

Consequently, the knowing of art is more like a cognitive feeling process or a direct experience rather than solely a method involving propositional knowledge. The fact that people enjoy and indulge in a particular piece of artistic work over and over, gives credence to the necessary involvement of feeling in the knowing of art. We tend not to seek out and experience a piece of factual information over and over in hopes that feeling and understanding will be revitalized.

However, the most compelling factor for art knowledge to be regarded as more than conceptual and to rely heavily on a feeling component is what the artist has contributed to the art through feeling. Marco Fink, a Swiss sculptor, who works in wood and marble in the interior of British Columbia, often begins to 'feel' how he must sculpt a piece of stone when he initially observes the raw material. He has a tremendous concern for nature and every sculpture reflects the accompanying feelings of joy, peace, anger at abuse, and wonder of the power and beauty of his world. If the observer of Marco's work is only capable of analyzing the techniques used, then an actual part of Marco is discounted because a piece of him goes into every sculpture he does. I know Marco and I see him in every one of his works of art through the feeling with which he has imbued them. The difficulty of speaking clearly about such matters, when immediate experience makes them obvious, points to the limits of propositional knowledge in a complete account of coming to know.

Another dramatic example of the importance of direct experience and the feeling component involved in the knowing of art is the artistic works of Artemisia, a female painter in 17th Century Italy. At 17, Artemisia was raped by a trusted tutor and betrayed by family, friends and the courts during the ensuing rape trial. Every painting of Artemisia expresses the resultant feelings in a powerful and complex way. To wonder only at her technical skill and not feel the anguish and strength of this woman is to do a disservice to her art and to her personally. The knowledge of art is also the knowledge of life. Is this ultimately the truth of art?

The Knowing of Persons

Now let us consider the knowing of persons, and moral knowledge.

> Persons and personal relations are at the heart of morality; "respect for persons" is [sic] a very generally accepted central principle of morality. (Reid, 1986, p. 66)

> One cannot respect the person, including her potentiality for the developing power of understanding, without respecting her unique energy of interest. (Walker, 1988, p. 35)

Downie & Telfer propose that in order to gain respect for persons, one must have respect for persons as ends. To value someone for what he is, is to cherish or care for those characteristics which make him what he is. Respect for a person involves an attitude or way of attending to the person, and a principle of action or a way of behaving with the person. To value someone means to see the person as having the ability to be self-determining and rule following; capable of deciding and planning and executing such decisions and plans. This is what Kant (as cited in Downie & Telfer, 1969, p. 28) referred to as the rational will. Respect for persons is a concern for the ends that another is seeking so those ends become one's own. There is also a willingness to provide all the

necessary resources to assist the other to reach their ends. "Hence, to respect a person as an end is to respect him for those features which make him what he is as a person and which, when developed, constitute his flourishing." (Downie & Telfer, 1969, p. 15) To attend to the person and behave otherwise is to disrespect the person. "Conversely, to impair a person's abilities to formulate and carry out aims and policies of his own devising is to that extent to destroy him as a person." (Downie & Telfer, 1969, p. 21)

It is probable that knowing and understanding persons and interpersonal relations is the most complex task of knowledge attainment. It involves, at the very least, psychological, epistemological and moral factors. This understanding and knowledge of persons necessitates a reliance on intuition, conceptual knowledge, awareness, direct knowledge, feeling and personal involvement. (Reid, 1986) Moreover, Reid cautions the knower of persons, whether a teacher, psychotherapist or friend, to be aware of the potential obstacles that conceptual, abstract generalizations can be to the understanding of others in this knowing. The propositional intellect can easily distort and miss the point where knowing the uniqueness of an individual is concerned.

Vital in all this is that the knower continuously develop an awareness of the self, for without self-awareness respect for self and others is unattainable. Only when I understand myself in terms of my feelings, interests, motives, fears values and personal history, can I reach out cognitively and intuitively and be aware of the magnitude of importance of the other person in terms of their comparable interests and concerns. How else could I relate truly to these things and others? Even more so, it's only with self-awareness that the knower can respect the person to be known, since it is in oneself that the value of being a person is recognized.

> Self-knowledge is therefore crucial to the birth of respect. And we begin to see again the wisdom of Socrates when he claimed that the unexamined life is not worth living. (Walker, 1988, p. 29)

History is littered with examples of the harm done to others by those who have not learned to respect aspects of themselves. It is essential that self-awareness and respect for persons be attained in the educational arena. Without the presence of these critical components, education appropriate to a person cannot happen. The student does not *have* interests or needs, the student *is* interests, feelings, background and motives. To discount the importance of these aspects is to discount the person–the student. (Walker, 1988)

Pring supports this position when he sees the student entering the education system with a very rich, complex mental life. It is this thinking pattern, behavioral methods, individual ways, knowledge and individual ways of learning and knowing that are to be educated. The common-sense belief system in all this is not denied, but actively examined and attended to, and in general, respected. Pring describes common sense as a shared, unquestioned set of beliefs that give a person his or her worldview. This set of beliefs colors and dominates the minds of the students and all they survey. Therefore, education must begin here. The teacher brings common-sense knowledge into her classroom and meaningful education involves a mutual, critical examination of both belief systems, not with an intent of rejecting the beliefs (though that may often happen), but with a willingness to understand the significance of the beliefs for the persons involved. "It is not the set of beliefs that needs to be rejected, but only (slowly) the manner, the commonsense way with which they are held." (Pring, 1976, p. 86)

I do not wish to convey that I hold all beliefs, values and thoughts equally meritorious. In the case of a young Neo-Fascist, I would argue that the belief

does need to be rejected by the believer. However, the task of the teacher is to assist self-realization and community awareness for the rejection to occur. This can only happen if the teacher accepts the belief as an important part of the student. Disrespect for the person, when demonstrated by rejection, will not facilitate a transformation of understanding. A sympathetic understanding of the particular common sense of an individual and his or her culture is crucial to respect.

A North American native child learns that it is a sign of disrespect to look a person directly in the eyes while the non-native North American learns that a behavioral sign of honesty is to look a person in the eye. The lack of self-awareness of these beliefs and the corresponding disrespect for the significance they have for the other person has created disastrous consequences in the school and the legal system.

Ignoring the concerns of the child is disrespectful of the person as it trivializes their interests, needs and beliefs and discounts the central educational core of the child—the mind. Only material that has intrinsic value for the child and pertains to the child as a whole will be a catalyst for life-long knowing. The child's interest can be a starting place to further develop the activities of the mind including perceiving, inquiring, deducing, critical thinking and adapting to change. The purpose of this approach to learning to understand is to allow something to happen so that students leave the educational situation internally different than when they enter. Hence, they are transformed, with a strong sense of and capacity for control of the crucial life-long process of knowing.

> Don't forget that the child is a living thing, with thoughts and beliefs, hopes and choices, feelings and wishes; helping him with these must be what education is about, for there is nothing else to educate. (Pring, 1976, p. 51)

Summary

The perspective that is assumed on knowledge determines the educational system. This system includes in an interrelated way, the curriculum, instructional and evaluation methods, the teacher-student relationship, and the accepted and appropriate ways of knowing. There has traditionally been an excessive emphasis on established expression of propositional knowledge. Propositional knowledge is characterized by a rational-analytic methodology. It is typically learned through a relatively passive process. Propositional knowledge exists externally to, and too often, in disconnection from, the student. Greater understanding and respect for intuition and related aspects of knowing can do much to lessen this common problem of school learning.

Intuitive ways of knowing enable the student to understand the significance of a situation for herself both with and without conceptual analysis. Intuitive understanding is internally activated and what is known is in intimate connection with the person. More emphasis on modes of inquiry as the crucial process in coming to know helps connect the student's understanding with established knowledge. Properly handled, this develops the student's sense of a connection between learning and the overall quality of life, laying a foundation of wisdom as well as specialized knowledge. Critical to all this in schools is the establishment of a relational climate of respect for persons.

CHAPTER V

ASSESSING ISSUES CENTRAL TO KNOWLEDGE AND EDUCATION AS THEY RELATE TO FEMALES

Introduction

Despite the complexity and breadth of the issues regarding knowing, knowledge and schooling, it is now possible to re-examine them in relation to each other according to two general categories: a separative/transmission orientation to education and a connective/community orientation to education.

Separative/Transmission Orientation

A separative/transmission orientation to education emphasizes hierarchy, authority, relationship by role-status, and preconstructed, universal rules for individual behavior. This orientation advocates respect for the teacher and text-initiated information and a grading system that measures retention and standardized understanding. The primary knowledge base is the pre-formulated propositional knowledge held by the teacher and the fixed expression contained in texts. This represents an emphasis on intellectual transmission and reception, that includes a separation, almost exclusive of the self, from the learning. Hence, its characterization is that of a separative/transmission orientation.

Confirming and denying of personal experience is a confirmation or denial of the self. It may be devastating or uplifting, but it will not have a neutral effect, or operate merely as something to pass or fail and try again. Many women include confirmation of personal experience as the foundation for their conceptual, analytical thought process. If experience is the self, to deny inclusion of individuality of experience is to insist on a separation of self from learning. In a separated state, without a bond between learned information and

past experience, the learning process lacks validity of confirmation. If the self is not confirmed in a learning situation or any other situation, how can the educational experience be valid as such for students? To attempt to educate the student and separate the self from learning is to burden the student with inert ideas. (Whitehead, 1957) This outcome of education must be avoided. The following passage characterizes a true educational experience with an integration of self and the newly-learned material:

> Let the main ideas which are introduced into a child's education be few and important, and let them be thrown into every combination possible. The child should make them his own, and should understand their application here and now in the circumstances of his actual life. (Whitehead, 1957, p.2)

The separative/transmission orientation to education appears to be very much a design of schooling based on the male cognitive perspective as identified by Roland Martin (1981). This does not imply that the separative/ transmission orientation is more humanly or educationally appropriate for males than the connective/community orientation, but that it is generally more readily accepted by males.

Connective/Community Orientation

A connective/community orientation to education is characterized by a direct feeling of community, relationship as persons, and a commitment to expectations of behavior that enhance relationships. Respect is for persons, including an awareness and appreciation of the experience, interests and aspirations of both students and teachers. Being fully attentive to another requires intuition, awareness and empathy. This orientation is more inclusive and recognizes the important contribution that can be made by propositional knowledge.

The connective/community orientation to education has been advocated by Downie and Telfer (1969), Noddings (1984), Pring (1976), Reid (1986), and Walker (1988), to name a few. Sufficient information exists to suggest that the connective/ community orientation to education is more compatible than the separative/ transmission orientation with the characteristics of females concerning educational and personal needs. Accordingly, this chapter will focus on the characteristics of the connective/community orientation to education and contemporary females' ways of knowing and being, considered from the standpoint of general epistemology. However, it is not assumed that there is anything intrinsically or biologically different in the female capacity for learning and understanding.

A connective/community orientation to education implies the context of a community, in the strong sense that a communal approach to learning is considered humanly and educationally fundamental.

> In a community, unlike a hierarchy, people get to know each other. They do not act as representatives of positions or as occupants of roles, but as individuals with particular styles of thinking. (Belenky et al., 1986, p. 221)

Pring (1976) writes specifically of the social aspects of mental achievements from attainment to maintenance and justification and suggests that learning requires an attitude of co-operation rather than competition. Hence, the self is in community, not in separation. He cites "collaborative spirit" as an essential quality that touches all subjects in the curriculum. (p. 22)

Peters highlights the importance of the individual as person in relation to this meaning of community, as follows:

> The consciousness of being a person reaches its zenith, perhaps, in the experience of entering into and sustaining a personal relationship which is based on reciprocal agreement, where the bonds that bind people together derive from their own appraisals

> and choice, not from any status or institutional position. (Peters, 1970, p. 212)

Personhood

Clearly then, whether there can be community depends on how we understand and respect personhood. Personhood does not happen automatically with the birth of a child. Being a person is not to be equated with being biologically human. It is possible, even probable, for a human to have very little sense of herself as a person as is the case of the silent learner. This was acknowledged historically in 1929, when women were granted the status of person. However, personhood is not a status and therefore it cannot be accorded to one human by another. The essence of personhood requires relationships that respect freedom of choice and self-determination, care for the expression of the feelings of the inner self, and experience of the uniqueness of the person. There is also recognition of the person as a total being comprised of the physical, feeling, intellectual and spiritual aspects. Walker describes this respect for the uniqueness of self, as follows:

> It is in *this* experience that one is recognized *fully* as oneself, . . . it is only in *this* experience that one's *self* as such is recognized *at all*. (Walker, 1988, p. 35)

It is evident that the teacher who demonstrates respect for persons is aware that the student is deeper than the visible presence before her. She knows the need for the care of the sensitive inner being that is sitting before her. Respect for persons occurs in relation to others where interdependence and qualities of connectedness are prized over hierarchy and position. According to Downie and Telfer (1969), respect for persons is an attitude or a way of attending to persons, and a principle of action or a way of behaving with persons. Buber believes respect for persons is explicit in the relational process of "inclusion." Here, there is a unity and a duality as the teacher looks and

listens through the senses of the student, as well as her own. This duality occurs when the teacher sees the situation both from her perspective and that of the student. (Buber, 1965) There is also an awareness that the student is self-governing. This is consistent with Downie and Telfer's recognition of the presence of the rational will of persons. Therefore, inclusiveness and independence must not be seen as mutually exclusive. This is not the kind of independence of the individual who is isolated and separative. It is a desired independence of the person who, in community, is viewed as goal-seeking and self-governing. It is an essential element of respect for persons.

> As she exercises this inclusion, she accepted *his* motives, reaches towards what *he* intends, as long as these motives and intentions do not force an abandonment of her own ethic. (Noddings, 1984, p. 177)

Inclusion and Confirmation

Noddings introduces the terms inclusion and confirmation, stressing that it is only through inclusion that the student can be confirmed, since inclusion operates so there is an attitude of acceptance of the person as a whole. It is an attitude that both accepts and confirms. It does not merely "accept" and shrug off. It accepts, embraces and leads upward. (Noddings, 1984, p. 67) The person is welcomed and seen as a contributing member of the community. (1984, p. 65)

Perry (1970) and Belenky and her colleagues (1986) offer dramatically different views of women and men and their respective orientations to confirmation. Perry proposes that the male student expects and accepts that confirmation as a learner will be the finale of his education. This conclusion is based on men's apparent willingness to enter a system realizing that everything they need to know in a particular discipline lies before them. Hence, their task is to absorb the information and prove they can use the knowledge. This order of

reward following accomplishment, more readily fits an impersonal educational system based on separativeness, isolation and hierarchy, rather than a system of connection and community. This appears to conflict with Noddings' general assertion that confirmation occurs though inclusion. While confirmation is essential for everyone, it appears that confirmation of the person is particularly essential for women throughout the educational process if they are to feel worthy enough to succeed in the school. "For women, confirmation and community are prerequisites rather than consequences of development." (Belenky et al., 1986, p. 194)

Receptive Presencing

Belenky and her associates (1986) state that many women stressed the need for confirmation of their very existence as being crucial at the beginning and throughout their educational career. This includes an acceptance and appreciation of their experiences, motives, goals, fears and hopes. Confirmation, for women, requires an awareness of her as a person in her totality and a receptive stance. Noddings (1984) refers to this as being present to the other person. This is an attitude that receives the whole person with complete attention for the moment of the relationship. Therefore, when a student answers a question in class, the teacher receives the whole student, not only the answer. Buber (1965) describes receptive presencing as the relationship of "I and Thou." "Thou" is a respected subject, free to express herself. This freedom includes the expression of ideas, concerns and feelings.

> What I must do is to be totally and non-selectively present to the student—to each student—as he addresses me. The time interval may be brief but the encounter is total. (Noddings, 1984, p. 180)

Noddings asserts that receptive presencing is empathy, like a "feeling with" or "receiving of" the other. (1984, p. 30) Eye contact can powerfully convey

a receptive attitude of interest, concern, approval and pleasure with the student. By whatever channels, receptive presencing is required to maintain the student's interest in the relationship of schooling. To feel she is an object devalues the student and may result in her leaving the uncomfortable environment literally and figuratively.

Receptive presencing requires the participation of the total person. When interactions are constructed according to separation, hierarchy and position, rather than community, there is minimal consideration for interactions of the whole person. If the person thinks of herself as teacher and the child as student, she cannot receive the total person because she only sees the child occupying the role of student. The person in her role of teacher, is not responding as a total person and cannot fully be present to and receive the other.

Do male students differ so radically from female students? Chodorow (cited in Gilligan, 1982) suggests that the forced separation from the female caregiver that boys experience in childhood is an influential experience for men which affects all aspects of life. However, even to acknowledge the forced separation does not necessarily lead to a conclusion that men want to follow a path of separativeness. It is possible the male student generally expects and accepts that confirmation as a learner will be the finale of his education. However, it is arguable that the male student expects and accepts that confirmation as a person can only occur at the end of his educational career. It is unlikely that males in general desire an education where new learning excludes previous and present experiences of the learner. My own observations suggest that many males experience the same confusion, insecurity and alienation as females in an educational system of separativeness. Noddings appears to agree:

> So many of the practices embedded in the masculine curriculum masquerade as essential to the maintenance of standards. I suggest that they accomplish quite a different purpose: the systematic dehumanization of both female and male children through the loss of the feminine. (Noddings, 1984, pp. 192-193)

Significance of Evaluation Methods

The different attitudes to pedagogical relationship are clearly portrayed in evaluation systems. Noddings (1984) contends that an evaluation system that involves the teacher evaluating the students negates the confirmation of the total person. She makes a distinction between competence as a "global mastery" (p. 62) of a significant part of the person's world and competence defined as the ability to perform certain specified tasks. The former is thought to be an innate desire that the child brings with him to the school, while the latter is engineered by the educational structure and may have no particular relationship to the child as an individual. Competency-based tests or achievement tests are developed to evaluate the progress of the child. There is pressure to master the material within a particular time frame since the same test is concurrently administered to all students in a specific grade or level. The purpose of the information received from the evaluation is not to enhance the relationship between the teacher and the student, or necessarily improve the performance of the student in mastering the material to be learned. It is more likely that the intention of testing is to rank persons on the basis of who has 'learned' more in the sense of who has succeeded and failed at the impersonally prescribed tasks.

When the teacher's primary aim is to prepare students to comprehend material in order to perform on a test, she is not receiving a total person or presenting herself to the students in her totality. The interest, enthusiasm, fears and aims of the students are considered secondary to performing as required with the appropriate material, if they are considered at all. Respect for the

person cannot exist when the person is superseded for the sake of external objects such as tests. This evaluation system promotes competition for scarce rewards and comparison with others that results in a ranking of students. A system that encourages competition to achieve scarce rewards attempts to manipulate the student while it ignores what Buber (1965) calls the self-governing quality of personhood.

This ordering of reward following accomplishment in the education setting implies that the accomplishment begins with the entry to school. It denies what existed for the student previously, thereby denying what is part of the personhood of the student now. Pring (1976) refers to this as a denial of the mental life, including the thoughts, feelings and interests of the child. Both the accomplishment and rewards are external to the person and deny the community that can exist among students. While opportunity for accomplishments and rewards may appear to be available to all the students, few will attain the most prized rewards. An evaluation system that uses a bell-curve balancing procedure ensures that the rewards go to the top ranked students. There is an expectation that the student will be judged as to whether the confirmation is truly deserved. Thus, we have confirmation of prescribed achievement rather than confirmation of personhood. This is determined by how well the student meets the learning expectations of the educational system. Confirmation and denial of confirmation is based on an impersonal criteria of acquired formalized knowledge.

Bruner (1977) suggests that the intrinsic rewards of interest, curiosity, discovery, awareness and understanding need to be incorporated into the curriculum. Intrinsic rewards are more compatible in a curriculum emphasizing learning situations that allow for the expression of the innate need of students to interact competently with their world. Bruner also suggests challenging students

by giving them a chance to exercise their full mental powers by providing them with opportunities to be totally absorbed in a problem.

Overall, the school as a genuine community is more concerned with behavior that relates to the well-being of persons and the enhancement of relationships, rather than focusing on the strict enforcement of universal rules and punishment. Noddings suggests that judgment of the actions of others is appropriate but that it needs to be applied across a broader, more flexible range that recognizes the essence of the persons involved.

> Rather it recognizes and calls forth human judgment across a wide range of acts and feelings, and it allows for situations and conditions in which judgment (in the impersonal, logical sense) may properly be put aside in favor of faith and commitment. (Noddings, 1984, p. 25)

Respect for Initial Mental Life of the Student

Further consideration of the initial mental life of the student is required in this discussion. Inherent in respect for persons is the respect that must be accorded the mental life the student brings into the classroom; for that is the student and the being the teacher has to educate. The belief that an adult student or a child is a blank slate and the information that she acquires will support the intended message of the teacher is erroneous. The message will be filtered, interpreted and modified through the life experience, assumptions, view of the world, ways of thinking and solving problems, and the previous formal and latent learning of the student. To deny the presence of the mental life of the student is to deny the person. (Pring, 1976) This denial suggests that a split exists between life before education and life after initiation to education. This is ultimately a denial of the person. How can I have worth as a person if all that I know as a person is denied? The assumption that significant mental life did not

exist before education is to suggest that a significant person did not exist before initial education.

Walker (1988), Pring (1976) and Whitehead (1957), stress that the disconnection of the particular mental life is alienating. When women are seeking affirmation of their knowing they are seeking affirmation of the self in terms of experience and learning that has gone before. "They needed to know that they already knew something (although by no means everything), that there was something good inside them." (Belenky et al., 1986, p. 195)

Confirmation of the knowing and the knower can be achieved when previous knowledge is a crucial part of the foundation for new learning. This integrated construction of knowledge provides continuity and connectedness of the person in the learning. Acknowledgment of the particular mental life of the individual student does not, however, mean unquestioning acceptance of all the content of their mental life. Respect for the importance of what is known requires critical evaluation of pertinent values and beliefs, previous information that is known, and the information to be learned. To learn new material without evaluating both old and new together in an integrated way is to continue to dichotomize what is known and what is to be learned. The critical reflection on the whole of the individual's knowledge will provide a meaningful integration and continuity of knowledge and the self. "Part of what is meant by 'educating common sense' is the attempt to get the pupil or student to reflect upon, to look critically at, to make explicit the assumptions of what is already 'known.'" (Pring, 1976, p. 121)

Connective Education

According to Belenky and her associates, for many women, an education that emphasizes the importance of their interests and experience is necessary to

provide an atmosphere of support and affirmation of their worth as persons and knowers. This allows these women to actively use what they know through experience and develop and expand on their abeyant knowledge. To free the unique resources of the individual mind and laud what that source can contribute to furthering education, is to respect and free the person. An empowering result of connective education is the initial confidence it gives many women, not merely in their ability to learn but to realize and trust in the knowledge they already possess. (Belenky et al., 1986) A philosophy of learning that emphasizes the worth of experience as a crucial knowledge base appears to be essential for the confirmation many women require to succeed in an educational environment. It is difficult to see how this freedom is possible in a traditional system that exclusively emphasizes the superiority of the knowledge of external sources of information such as teachers and text books and ignores the unique resources of the individual minds of the students.

The contributions made by these external sources are important and play a major part of a transformation for the student when working with their experiences and abeyant knowledge. For previous experiences to be a worthwhile foundation for furthering knowledge and integrated as understanding in the student's life, they need to be scrutinized, clarified, criticized and possibly redefined. The same procedure is required for the knowledge that is presented by the teacher, theorist and author. A method of communication that gives an equal opportunity of voice to all the participants is needed.

> And unless connections can be made between the respected, academic and disciplined modes of enquiry and this mode of consciousness—often inadequate, often unsystematic and unreflective—of the learner, then the point and validity of their subject-matters, incorporated into the syllabus, will be lost. (Pring, 1976, p. 127)

A major attraction to coming to know is the student's interest in the material to be known. Bruner, like Whitehead (1957) and Pring (1976), suggests that to be interesting, material must be seen as worth knowing. Allowing a child to use her full powers to explore a phenomena provides the initial excitement of unanswered questions, resulting in the final discovery of the solution, and the accompanying wonder at the discovery. The internal energizers utilized here are more influential than external rewards in stimulating an interest in life-long learning since awareness and understanding sustain the desire to learn. One of the most effective ways to create interest in a subject is to make it usable in thinking situations. Hopefully, many of these thinking situations will occur outside of school, and if the material is seen as interesting, the more applicable it is to the life of the person on a global scale.

Intuitive Ways of Knowing and Connective Education

According to Bruner (1977), it is likely that an educational system that focuses on tests and associated rewards and punishments will inhibit the use of intuitive thinking. Intuition, as a way of knowing, implies an immediate cognition that does not resort to systematic, formal analysis. Bruner points out that the school has operated so as to devalue intuition as a way of knowing. Further, he questions whether the school curriculum's disproportionate emphasis on the rational analytical way of knowing has an adverse effect on the development of intuition. Little research exists on the importance of intuition in various fields of study.

> The warm praise that scientists lavish on those of their colleagues who earn the label "intuitive" is major evidence that intuition is a valuable commodity in science and one we should endeavor to foster in our students. (Bruner, 1977, p. 667)

Bruner also suggests that certain school environments and curriculums will be more conducive to the acquisition of intuitive thinking skills than others.

Intuition is more prevalent and effective in an environment that fosters self-confidence. Intuitive thinking, being a surge of comprehensive connection below conscious awareness, does not always lead to correct answers and courage is required to assume the risk of error. To undertake this risk confidently requires a setting where errors are accepted and recognition that this channel of inquiry is useful and can lead to valuable conclusion.

> Such thinking, therefore, requires a willingness to make honest mistakes in the effort to solve problems. One who is insecure, who lacks confidence in himself, may be unwilling to run such risks. (Bruner, 1977, p. 65)

Or as Walker puts it:

> An essential part of what it means to pursue a process of learning *intelligently* is to make one's errors count, but to make errors count one must feel free to make errors. (Walker, 1988, p. 75)

Tests tend to emphasize and measure the acquisition of factual information where only correct answers are valued. Factual information as propositional statements can be taught in isolation and disconnection–as separate and distinct from other facts and from the student. It is more likely that intuitive thinking will be encouraged when the structure and connectedness of knowledge and the multiple determination of events are emphasized. In mathematics this approach to problem solving is called heuristic. For example, mathematics is taught so the child comes to understand mathematical order, rather than applying formulas without understanding their relatedness to mathematics. Specifically teaching heuristic procedures may well encourage and strengthen an intuitive predilection. (Bruner, 1977) However, Noddings (1984) sees this search for understanding of the structure of a subject as essentially an intuitive one.

A major objective of teaching with a heuristic approach is to stress the continuity that exists between what the mathematician or scientist does to solve a problem and what a child does to solve problems in the related field. This approach to teaching can lend itself to an evaluation approach that emphasizes the understanding of the connectedness of the fundamental principles of a discipline. Grades that are determined by a demonstration of the fundamental structure of a subject also may encourage intuitive thinking. This mode of learning requires a more open and flexible exploration than the set-linear learning we usually find. This open and flexible exploration may often appear passive.

Noddings expands on the aspect of passivity in intuition. She suggests that intuition has a receptive quality: "'to intuit the other' will be to receive the other." (1984, p. 162) In order to receive the other, whether it is a person or an idea, it is necessary for the observer to stop manipulating and controlling the "other" and give the "other" the freedom to direct the thoughts and feelings of the observer.

> This sort of passivity it should be noted is not a mindless, vegetable like passivity. It is a controlled state that abstains from controlling the situation, it involves ongoing process but not explicitly goal-oriented activities. (Noddings, 1984, p. 165)

Bruner (1977) advocates plausible or educated guessing as a means of initially finding solutions to problems where there is insufficient information to apply analytical methods. Noddings (1984) also stresses the need for a secure environment where the student knows that she is accepted for herself and will not be concerned about making errors. The student also must have adequate time to pursue the intuitive process fully.

Clearly, an educational climate that produces insecurity and fear produces a paralysis of the free play of the mind and reduces the likelihood of

development of intuition in students. Grading schemes that are based on rewards and punishment easily generate insecurity. Such evaluation methods are also used to assess and compare the student's achievements in particular areas. Competitive, comparative achievement assessments readily produce feelings of insecurity and fear.

It is reasonable to conclude that intuitive thinking is more likely to be developed, be accepted, and flourish in a relational learning context of a connective orientation to education. Walker (1988) suggests that ideas be regarded as personal, playing a major part in our personal discoveries, self-awareness and quest for a better life.

Dialogue As A Process of Communication

A relational learning context of education requires processes like dialogue that complement and enhance connectedness, stimulate interest and welcome the intuitive ways of knowing. Dialogue is a natural mode of communicating. It happens when people respect one another as persons and have a strong desire to jointly solve a problem and discover the truth together, with the advantage of several minds. Dialogue begins with the interests, problems and questions of the person and does not require a formal conceptual background.

The following qualities characterize dialogue:

- Intense inquiry and a desire to discover the truth are essential.
- Direct observation and an awareness of the environment as well as reflection on experience are powerful contributors.
- A willingness to take responsibility for the inquiry and "be with the question" for as long as the inquiry is fruitful and satisfying. (Mathews, 1984)

Dialogue With Children

Dialogue can be as effective and exciting with children as it is with adults. The natural essence of dialogue is the way of talking for young children. Children use dialogue to communicate in diverse settings with various degrees of guidance. A favorite and effective dialogic method with children involves story completion. Another effective method is collaborative and reflective inquiry on story themes. (Mathews, 1984)

Extensive study with children reveals they have the potential to be as enthusiastic and capable of successfully engaging in dialogue as many adults–sometimes more so. Children tend to possess the interest, curiosity, imagination and wonder that are valuable contributing characteristics to the dialogic process. Adults often must reawaken to this intensity of awareness that is essential for dialogue.

It is evident that children initiate and spontaneously engage in dialogue at an early age which is not unexpected when the naturalness of dialogue is considered. What is surprising is the omission of dialogue as a significant process of communicating and learning in the school. There are at least two explanations for this apparent unwillingness to use a process of communication that appears to be an already-acquired behavior for the child. First, it is generally assumed that children cannot successfully engage in dialogue because it is thought to be an adult activity. And second, it is assumed that the child lacks the maturity to ask questions and maintain the interest and patience required to effectively appraise the situations generated by the questions. This is not the case. In fact, children are capable of asking profound questions as well as demonstrating the required patience, interest, concern and empathy to stay with the question over time, and Mathews (1984), for example, has demonstrated this.

It is assumed that the limited conceptual capacity of the child prevents effective participation in dialogue. It appears, however, that children have considerable conceptual capacity to comprehend to some useful extent the most complex of situations. Nevertheless, children do tend to lack the conceptual fixity that characterizes many adults, but this is a beneficial attribute for dialogue. A dialogue about flowers and happiness, prompted a ten-year-old to pose the following question, "How can they be happy without a mind?" (Mathews, 1984, p. 10)

A more systematically harmful cause of the omission of dialogue in school is found in the relationship that exists between the child and the adult. Effective dialogue relies on respect for the desires, interests, experiences and the potential for insight that the student brings to the classroom. Unfortunately, dialogue is incompatible with a separative/ transmission orientation to education. The authoritarian stance of the teacher in a school based on a separative/ transmission orientation precludes dialogue as a process of communication and learning. Learning, as dialogue, requires recognition of a certain equality of the ability and capacity to learn and understand. Dialogue will be most powerful in the connective/community orientation to education where the contributions of the student to the learning and teaching are valued. In fact, dialogue needs, nourishes and seeks connective/community orientation in order to solve problems and explore concerns.

The Intuitive Potency of Dialogue

Dialogue has a potent intuitive aspect to its process. A major objective of dialogue is to use insight, intuition and sustained conscious awareness of the total communicative process in order to enhance the capacity of the person, and free them of confinement to societal expectations and arguments. This requires attention to external factors and the corresponding thoughts and feelings of fear,

anger, insecurity or self-righteousness that are generated by the encounter with differences in the process.

> There is something in the mind that is free, autonomous. But what is it? It is Socrates the questioner—but questioning now as a force, not as a game of concepts, questioning as an act of attention. (Needleman, 1982, p. 26)

This aspect of dialogue is like receptive presencing—staying with the feelings—despite the discomfort and pain.

Culturally prescribed ways of being and relating to others are part of the dialogic process because they are part of the consciousness of the participants, but the content and intent of these patterns are pursued differently in dialogue. For example, I may be aware that I am feeling anxiety and anger because I perceive that others do not understand the importance of my point of view. Ordinarily, I would expect to bolster my arguments in an attempt to convince them of the rightness of my idea. In dialogue, through receptive presencing, I will stay with my feeling, silently giving it a place and time. This can provide an opportunity for spontaneous multiple insight and a means to defend my point of view. I will be able to see my idea as an opinion that warrants scrutiny.

> So what happens in such moments of direct awareness sparked by an authentically questioning attitude? I see for myself, of myself, that thought is acting underneath conscious awareness in a very mechanical way, repetitively, as a blind habit. (Walker, 1994, p. 8)

This insight, as an intelligent power of change, is the beginning of transformation. I cannot deny that my own insight is grounded knowing as opposed to disconnected knowledge. It cannot be discounted or ignored, although similar opportunities for insight will undoubtedly be necessary before I can move on to further awareness as the journey of transformation completes itself. There is a profound change, even though it may take time to translate to a stage of generalization, so that the depth of one's being is irreversibly affected.

> Coming across truths immediately relevant to our personal and social lives in this manner of insight has the significance of being a *transformatory* power precisely because it is grounded knowing. We cannot go back on our own insights. What has been seen, cannot be unseen, even if it is cleverly covered for a while with some self-deception. Thus we cannot be the same person after the insight. That is what I mean by using transformation and not just change. (Walker, 1994, p. 8)

From this perspective, the direct awareness of knowing is a connective or integrating experience. It connects the person's awareness with all aspects of herself and others, potentially on a universal scope. In this way we gradually see ourselves as having operated almost in isolation from others. When conceived as isolated individuals, we find ourselves in conflict with others, fighting to maintain the survival of our solitary selves. Grounded knowing provides the experience of feeling our wholeness and an awareness that the boundaries between persons are porous.

Thus, dialogue as described here, is a connective rather than a separative process, where the whole person is engaged in collectively sharing consciousness.

Summary

This chapter has explored the relationship of knowing, knowledge and schooling to the separative/transmission orientation to education and the connective/community orientation to education. The separative/transmission orientation leads to a more extensive separation than separating the student from knowledge. The person also finds herself separated from the self (internally fragmented), the school and other persons. The separation can move dangerously toward a global phenomenon—alienation from nature and the world.

A community of learning, respect for the initial mental life of the student, encouragement of intuition, and the practice of dialogue are highly significant aspects of human learning. However, they are all in conflict with the structure and educational intent of a system that emphasizes transmission of knowledge and reliance on authorities. The only method of learning that appears appropriate and complementary to this orientation is the transmission of knowledge from the authoritative source to the passively receptive ignorance of the student. This may be learning, but it is not knowing.

The connective/community orientation to education appears to be open to and desirous of many ways of coming to know and ways of knowing. The student is valued as a significant source of informative experience. There is a respect for the student and all the interests and experiences that she brings to the school. This inclusion of experience and confirmation of the self, encourages a continuity, wholeness and connectedness of the mind of the person. Intuition, as a way of knowing and intuitive thinking are encouraged. The contribution of insight and immediate awareness are appreciated and encouraged through processes and attitudes such as dialogue, appreciation of experience, and presencing.

Many of the qualities of the connective/community educational system - empathy, respect for persons and respect for experiences and interests, connectedness and confirmation–have been presented as features that most specifically relate to women. The writings of Noddings (1984), Belenky and associates (1986), Chodorow (1978), Gilligan (1982), Roland Martin (1981, 1983, 1985) and Tannen (1990) seem to support the premise that women are more likely to flourish and grow in an environment that subscribes to a connective/community orientation to education. This is not to suggest that many, if not all, men would also experience growth in personal and learning potential in

such an environment. Indeed, there seems good reason to expect that all persons need such an environment for human nurturance and growth.

A connective/community orientation to education is more likely to contribute more completely to the overall mental and personal understanding of the student because it incorporates the natural and personally engaging intuitive, dialogic ways of knowing and emphasizes the qualities mentioned above. It therefore appears to be a preferable education orientation.

CHAPTER VI

CONCLUSION

This thesis began with a desire to understand more about what happens to the learning and attitudes of girls and women within the present system of institutional education in North America. However, it became increasingly difficult to understand what was happening for females in school without questions arising about the experience of school for boys and men as well. This has lead, necessarily, to questions regarding the conception for schooling for human beings as such, whatever their gender. These questions affect the conclusions I feel can reasonably be drawn from the inquiry as a whole.

Roland Martin (1981, 1983, 1985) proposes that in general school emphasizes procedures, traits and ways of knowing that are traditionally and culturally more appropriate for males than females. She also claims that traits and ways of knowing that are more appropriate for females are ignored in the school. In particular, Roland Martin proposes that the notion of the ideal educated person is fashioned from a male cognitive perspective. She further contends that it is this perspective, as it is applied in the school, which at root is responsible for creating a disadvantageous and sometimes harmful environment for women.

Roland Martin's (1981) concern about the "ideal of education" perspective as proposed by Peters (1970) lies in the narrowness of the perspective as well as the bias towards a particular way of knowing. Peters' "ideal of education" almost exclusively emphasizes rational analytic thought and propositional knowledge in a context of education as the transmission of the knowledge.

It has been argued that there are many ways of knowing beyond reception and use of established propositional knowledge, namely, intuition,

insight, awareness and attention and the valuable understanding that occurs through the knowing involved in the creation and appreciation of art and knowing of persons. Some ways of knowing may be more attractive and preferable to some individuals but it is all of these ways of knowing that are a part of and have importance for each individual, although perhaps latent for some persons.

Empirical studies strongly suggest that females demonstrate a marked preference for the more intuitive ways of knowing than for the rational analytic way of knowing. It has also been concluded that the school tends to pursue its encouragement of a rational analytic way of knowing at the expense of intuitive experiences. Based on these two conclusions, we can assert that females are clearly at a disadvantage in the school.

If the claim can be justifiably made that there exist many ways of knowing and that men and women alike are privy to all ways of knowing, it is probable that Roland Martin's claim is correct that Peters' perspective is too limiting. It is limiting in that it has as its goal the attainment of a certain intellectual capacity but it does not have as a goal the development of the whole mind that is needed for more balanced and satisfactory human development and transformation.

Education As Transformation

In order for the student to experience transformation, an environment that respects and acknowledges the whole person must exist. It is unlikely that the goal of improving the quality of life of humankind can be furthered in a system that is, in effect at least, oppressive and misconstrues and discounts natural aspects of the human mind, as well as the knowing which is its distinctive function.

> Any theory of education must have a theory of mind, and that central to the development of mind is the growth of knowledge. But I also argue that those who currently share this position have too

> narrow and too neat a view of what that knowledge is, and thus an inadequate concept of mind. (Pring, 1976, p. 2)

It is critical that two concerns be addressed. One crucial concern is the limitedness of propositional knowledge as an exclusive foundation for educational learning. It is also mandatory to question whether the transmission of propositional knowledge is a way of coming to know at all. Is it likely that real knowledge can be transmitted?

The concern is not that some knowledge is expressed in verbal statements, since this is often the best way to ensure clarity and avoid misunderstandings. The concern is that "Knowledge was being made dependent (and might even be called a dependant!) on the making of true statements." (Reid, 1986, p. 34) Such a view discourages attention to nonpropositional knowledge, and even more importantly, takes attention away from the individual activity of mind that judges truly or falsely and the "infinite degrees of obscurity or clarity" traversed in actual inquiry. (Reid, 1986, p. 34) Then there is the resultant inattention educationally to the encouragement of this activity of mind, of the powers of inquiry.

Knowledge and Truth

Rather than knowledge being a function of the truth of propositional statements, it can be argued that truth is a function of the "mind's living cognitive apprehension of the world." (Reid, 1986, p. 35) This view brings knowledge and truth back to the cognizing person, to the way in which the personal mind is involved. This perspective also realistically broadens the scope of the ways of coming to know that can reasonably qualify as knowledge. This recognition and acceptance of these ways of coming to know is essential for the understanding of virtually everything but especially for understanding crucial areas of human involvement, such as the arts, aesthetics, morality and values. Meaningful

knowledge of values can only be gained through direct awareness or insight even where a description can be provided. "What is referred to in any description is something which has to be known in independent intuition." (Reid, 1986, p. 36) Thus, on this view even unquestionably true propositional statements are not *fundamental* in the actual process of coming to know.

Connected Knowledge

It is also problematic that propositional (abstract) knowledge is presented to the student as a complete package while, in fact, it is incomplete. The abstract knowledge cannot meaningfully be separated from its concrete knowledge component. There exists a continuous interplay of the two which relates the abstract knowledge component to the living experienced world. Propositional knowledge is not something to be applied to experience but it must be "known" as vitally interwoven with experience.

> The two sides are thus fused and *interwoven*, and only in abstraction is it proper to take them as separate. In its actual concrete existence, knowledge is an *undivided whole in flowing movement,* an ongoing process, an inseparable part of our overall reality. (Jayakar & Patwardan, 1983, p. 40)

The content of knowledge is constantly in flux, some is cast out while new connections are made and added. Much of the new content is a product of a process beginning with intuitive thinking, insight, direct experience and awareness. An understanding of the knowledge as a whole cannot be approached when attempts are made to fragment and artificially limit what counts as learning. Thus, learning only the propositional statements is not equivalent to 'acquiring knowledge.' Propositional statements exist in separation from the "whole" of knowledge. (Jayakar & Patwardan, 1983 & Reid, 1986)

Transmitted Knowledge

It has been asserted that real knowledge is an attainment by appropriate activity, and cannot be transmitted. Specifically, what are some of the pitfalls of a reliance on the transmission of knowledge in education? Some of the difficulties with the method of transmission of knowledge resides in the property of propositional knowledge itself. When knowledge is transmitted it is passed on in numbers, words or other symbols. The symbols only point to the meaning of the material being presented. They are not the meaning. The symbols have a clean and precise meaning for the educator but may be meaningless for the student. Comprehension of the meaning of the symbols and the value or significance of the symbols varies for different students depending on their interests and experiences with the subject matter. There is little to energize the intelligence in learning symbols that are effectively disconnected from actual phenomena. The lack of comprehension may be so great as to preclude a process of inquiry to judge the truth of the material.

> So it is that through the attempt to "transmit" the finished product of enquiry ("knowledge") in the precise expression given to it by sophisticated experts, the student does *not* receive knowledge, beyond the trivial memorizing of the symbols and a few of their interrelations with other symbols. (Walker, 1988, p. 70)

As propositional knowledge is only part of a larger whole process of knowledge the student is only given a part of knowledge. The process begins with an inquiry based on a desire to know something. There is excitement in the search and in the insightful or intuitive discovery of something new and vital. This romance stage of transformational learning is lost to the student, and the world, with a methodology of transmission of knowledge. "The fascinating journey that education symbolized for the scholar is lost to the child who has the information presented in a dull, heartless, cold fashion." (Walker, 1988, p. 81)

When information is presented in the impersonal manner and in disconnection from meaningful life experience, it is, as previously explained, a mass of "inert ideas." (Whitehead, 1957) The intentional ignoring the active life of the mind of the student, his interests, desires, thoughts, beliefs, feelings and values, is dehumanizing for it denies the integrity of the holistic aspect of the person. The student now has the separative experience of "disconnection" from ideas and from himself.

In this way, the school fails to acknowledge and respect the richly varied mental life of the student and fails in its pedagogy to acknowledge the whole person. The body of knowledge that is acquired in isolation is not experienced as knowledge. It can be assumed from this that a major fault of the typical school is its orientation towards the transmission of propositional knowledge to the exclusion of other ways of knowing.

Evidence exists to suggest that males and females, generally, organize their worlds based on the respective orientations of separativeness and connectiveness. These orientations do tend to encourage different interpretations and experiences of such manifestations as power and competition, authority and control, talking and listening, independence, dependence and interdependence. The effects of the orientation based on separation are evident in the school. As previously discussed, some of the potential results of a school experience with a foundation of separateness are as follows. There tends to be emphasis on status and hierarchy rather than equality. Competition and individual achievement is valued over excellent performance and collaborative effort. Interpersonal relations are viewed in terms of confrontation and competition in learning rather than community and caring. There also exists a tendency for the development of reliance on established authority rather than the awareness of a desire for the interdependence of

genuinely knowing within oneself and a respect for expertise. All this clearly has important implications for the quality of life of humankind. Certainly both males and females must suffer, educationally and in general human terms, even if they suffer differently.

Education As Transformation

Although there are other reasons for the existence of education, the most praiseworthy and palatable as an overall reason is that education exists for the betterment of the quality of life of humankind. According to Whitehead (1957), the transformatory learning (of "alive" knowledge) that is required to understand the need for a better life and to act so as to bring about an improved quality of life is dependent on all ways of knowing as manifested within the stages of romance, precision and generalization. "Knowledge does not have value regardless of its usefulness. Its value is its power to add something important to the meaning and organization—the *quality*—of one's life." (Walker, 1988, p. 83)

The potential for harm is great when students acquire the "disconnected" ideas or theories but are not provided the opportunity to understand the real life potential for good and evil of these ideas. A process of personal inquiry, truth discernment, is required if intelligent value judgments of life paths are to be made. Whitehead asserts that we can actually come to value what harms us when ideas are presented in a disconnected fashion. (Whitehead, 1957) It is crucial that education include the process of inquiry that can provide the connection between ideas and theories and the pertinent quality of life factors. Beliefs can become knowledge when they are known through a process of inquiry.

Respect for intuition, awareness, insight, attention and the feelings of the student is essential for the romance stage of transformatory learning. Impersonal

propositional knowledge is essential for the attainment of later stages, but the romance stage cannot occur without the personal cognitive participation of the student. Children enter the school with varied interests, desires, motives and feelings. It can also be stated that the romance stage is essential for all the ways of knowing and all aspects of the life of the mind of the student. Beginning education with the curriculum rigidly prescribed as a fact-based agenda does not sufficiently take into consideration the existent mental life of the child. It is not surprising that the student appears "disinterested" and "unmotivated" and the task of the teacher is to "generate interest" and "motivate" the student. Ignoring the romance stage of learning so that interest is excluded from the start, contributes to the belief that the interest of a person must be externally, rather than inwardly, generated in school.

> It is Peter's or Mary's way of thinking, reacting, feeling, questioning that is to be educated. And to treat such individuals, diverse as they are in their various mental interests and activities, as a homogenous whole, or to introduce them , despite their differences both in modes of thought and in matters of concern, to a uniform way of thinking conceived without those individuals in mind, would not seem to be an education of *them.* (Pring, 1976, p. 6)

This implies an essential element of individuality of treatment in educating, which is larger than but includes the evident differences males and females bring with them by virtue of gender.

Education As Connected Relationship

The connection of information with the actual life of the mind of the individual student is a critical feature in transformatory learning. The presentation of factual information without the connection to the feelings, experience and other aspects of the mental life of the person renders the information useless apart from passing tests. The rational information exists in

isolation from the person. A connectedness of information and ideas with the whole person is necessary for the understanding to occur that allows the student to live a life under beneficial transformation by that understanding, and so a life of greater fulfillment. This implies a mature generalization stage wherein there is an awareness that knowledge and understanding can be and are to be used to improve the quality of life of humankind. It is this wisdom that recommends itself as the ultimate goal of education. Since they can be so destructively and confusedly applied, knowledge and understanding cannot be responsibly viewed as goals in themselves. The transformational experiences of knowing, as have been discussed here, harness the inquiring mind and its desire for truth discernment, including fundamental life values.

What is required, then, is an education system that is freeing, truth seeking and respectful of the natural value of the human mind. Valuing the mind means providing unlimited opportunities for the student to explore, question, seek the truth, reflect on beliefs and feel free and protected to make genuine errors and disclose the self. All ways of knowing are welcomed and essential.

> A curriculum should seek to provide the meeting place between the already active, therefore educable, minds of the pupils and the teachers who represent living traditions of thought that are relevant to the pupils' concern and interests. (Pring, 1976, pp. 111-112)

This connected relationship with the student can be accomplished very readily through the process of inquiry in dialogue. Inquiry in dialogue is a process that demands an opening of the mind and a joint search for truth. Students need to be encouraged to constantly question, with energy, whatever concerns them or seems to be problematic. They must also question the questions to expose the layers of assumptions and beliefs that have been accumulated. They must learn to relate in harmony in the midst of difference. If this ceaseless questioning becomes a respected, prominent way of coming to

know and relate harmoniously in the school, it will arguably continue to be a predominate way of coming to know about life and throughout life. The continuous, ongoing nature of inquiry and dialogue matches the continuous flowing and changing character of life.

Inquiry applied to the content of knowledge is obviously valuable. It is also valuable that the ways of thinking, feeling and responding of the students will also be disclosed in dialogue. Inquiry in dialogue can explore the thoughts, beliefs and the absolute truths that interfere with truth discernment. In this way dialogic inquiry is at the same time a way of being with oneself and in relationship with others.

Knowledge and Values

Knowledge and values are interwoven and inseparable. Something is valued according to the degree of merit , virtue or usefulness that is assigned to it. Things and ideas, can be ranked and prioritized according to the relative value placed on them. This set of priorities provides order and harmony for individuals in all aspects of their lives. Knowledge assists in assessing what is the actual virtue of a thing and in determining what is to be valued. The 'absolute truth' presentation and use of propositional knowledge is divisive and promotes the separateness of all things, including people. When ideas and information are presented as 'absolute truth,' there is, Bohm points out, a tendency of the knowledge to include a belief of the "absolute necessity" of the content of knowledge, and a belief regarding the "absolute necessity" of maintaining the established content despite convincing evidence that is contrary. (Jayakar & Patwardan, 1983, p. 54) This trap is very difficult to escape, as "necessity," by definition, means "unyielding." (Jayakar & Patwardan, 1983, p. 55) When too many ideas or things are considered "absolute necessities" it becomes

impossible to reasonably determine priorities and disorder results. Valuing natural sovereignty above mutual global interdependence is an example of setting priorities according to an atomistic, separative orientation toward the self and the world. Disorder also occurs because people need to justify the value of knowledge that is in contradiction. People often and unwittingly use distortion, deception and rationalization to accomplish this end. These behaviors obscure the truth and the need to discern the truth. Considering the learning required to effectively disclose these kinds of problems and to transform the habits, it is apparent that Peters' kind of educational perspective is woefully inadequate today and for the future.

It is crucial that the schools turn to other ways of coming to know, and certainly ones that deeply affect values. Solutions to the devastation that is crippling nature, including human nature, may only be found in the indefinite refinement and variation of the natural process of dialogue. It would seem to be the only available connected process of joint inquiry that is capable of exposing the relevant fallacies, faults and dangers in thoughts and belief *and* of *transforming* the problematic consciousness. Radically different and innovative ways of "seeing" the interrelationship of all nature is required to prevent more carnage.

Never before has there been such a desperate urgency for every human being to be able to be at one with others amidst all kinds of differences at every level of social groupings. To be with others in dialogue is crucial in a world that is faced with a high population, a high density population and a mixed culture population. The confusion that has resulted from the breakdown of virtually every traditional convention combined with the disorder and spiritual upheaval that has resulted from the separation of knowledge from values can only be redressed through the intense inquiry of dialogue. The disaster resulting from

the confusion of fragmented knowledge, which can be seen technologically, commercially, academically and politically, places in doubt the survival of the planet and the human race.

So, in virtue of the natural propensity of human beings to "belong" relationally and by virtue of the human and planetary situation, dialogue and the "connective" orientation in general are critically important. It is possible to state reasonably that to deprive people of the opportunity of such an education is a massive educational failure and irresponsibility.

This conception of the task and responsibility of education certainly implies that radical changes relevant to the real differences in the educational orientations of males and females are needed. However, it also implies that the focus of scholarly inquiry into the disadvantages for females, though unquestionably important, has definite limitations. The connective/community orientation does seem to be a movement of educational thought which is correct, but not, most deeply, for the reason that it outlines an education more suited to contemporary females. The same problematic system of schooling is equally inappropriate for males, since the very premises, epistemological and otherwise, of the typical system are confused in relation to the general and educational needs of human beings *as such*. This is the larger problem to address—a claim that becomes even more compelling in the light of the foregoing discussion of the human/planetary situation that thoroughly serious educational visioning and planning must take into consideration as never before.

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